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ABSTRACT

The Maryland study of the Career Information Delivery System (CIDS) was conducted to review computerized information delivery systems. The study also sought to assess the Information Network for Occupational Resources (INFORM) system, in terms of user satisfaction. The review process started in September 1988, at which time 320 current INFORM users were surveyed. Since that time, a review of literature, contact with 57 other state occupational information coordinating committees (SOICCs), a series of vendor presentations, and the use of demonstration software packages have taken place. The study found a high level of dissatisfaction with the current INFORM microfiche system, but a high degree of support for a microcomputer INFORM system. Students and counselors are using the current systems, but wish to improve them. The study concluded that Maryland should use a computerized CIDS; that the CIDS should be enhanced to include regional data; that data on Maryland occupations, high schools, colleges, trade schools, and financial aid sources should be incorporated into the system; that CIDS should be state supported; and that it should be available in a variety of equipment formats. (Appendices include survey and system evaluation forms, site visit reports, and the Association of Computer-Based Systems for Career Information's standards for career information systems.) (KC)

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MOICC

C.I.D.S. SURVEY

REPORT

BY

JASMIN M. DUCKETT

MOICC COORDINATOR, JANUARY 1989

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EXECUTIVE SUMMARY

The C.I.D.S. Technical Steering Group was charged by the State Occupational Information Coordinating Committee to review computerized information delivery systems. At the same time, the SOICC coordinator was charged to assess the Information Network for Occupational Resources (INFORM) System.

The outcome from both processes may result in any of the following action(s).

1) Enhancing the current INFORM system
2) Changing systems
3) Computerizing the current C.I.D.S.
4) Discontinued or continued use of microfiche
5) Combined computer/microfiche system

The review process started in September, 1988 at which time 320 current INFORM users were surveyed. Since that time, a review of literature, contact with 57 other state SOICCs, a series of vendor presentations, and the use of demonstration software packages have taken place.

The following pages contain a report of the findings.

RECOMMENDATIONS

The C.I.D.S. Technical Steering Group makes the following recommendations to the State Occupational Information Coordinating Committee.

(1.) MARYLAND SHOULD UTILIZE A COMPUTERIZED C.I.D.S.

(2.) MARYLAND SHOULD ENHANCE THE C.I.D.S. TO INCORPORATE REGIONAL DATA.

(3.) IN ADDITION TO THE NATIONAL FILE DATA, THE C.I.D.S. SHOULD INCLUDE INFORMATION ABOUT MARYLAND LOCAL OCCUPATIONS, SECONDARY AND POST-SECONDARY MARYLAND EDUCATIONAL PROGRAMS, MARYLAND COLLEGES AND UNIVERSITIES, MILITARY OCCUPATIONS IN MARYLAND, MARYLAND INDEPENDENT TRADE SCHOOLS, AND MARYLAND FINANCIAL AID RESOURCES.

(4.) THE MARYLAND C.I.D.S. SHOULD PROVIDE UP-TO-DATE, ACCURATE CAREER INFORMATION AS THE COMPREHENSIVE STATE SYSTEM IN AN EASY TO USE FORMAT.

(5.) THE C.I.D.S. SHOULD BE STATE SUPPORTED AND BE AFFORDABLE AND ACCESSIBLE TO THOSE SCHOOLS AND AGENCIES IN THE STATE WHICH HAVE LITTLE OR NO ACCESS TO A C.I.D.S.

(6.) THE C.I.D.S. SHOULD BE AVAILABLE IN A VARIETY OF EQUIPMENT FORMATS: IBM PC HARD DISK; APPLE PC HARD DISK; MAINFRAME, NETWORK AND MICROFICHE.

MARYLAND OCCUPATIONAL INFORMATION COORDINATING COMMITTEE
C.I.D.S. SURVEY REPORT

OBJECTIVE OF THE STUDY

The overall purpose of the Maryland Study on the Career Information Delivery Systems (C.I.D.S.) was to determine the degree of user satisfaction of the Information Network for Occupational Resources (INFORM) System. The INFORM System is developed and maintained by the Maryland New Directions, Inc. under contract with the Maryland Department of Economic and Employment Development. The findings of the intensive review of INFORM indicate whether users are satisfied with the current Maryland C.I.D.S., whether the current Maryland system should be enhanced, or whether the current Maryland system should be replaced by another C.I.D.S.

There is general agreement among all C.I.D.S users that Maryland is in need of a C.I.D.S. system which will meet the information needs of a variety of users. Included in the Maryland C.I.D.S. should be information for planners, guidance counselors, vocational directors, educators, vocational rehabilitation personnel, and librarians. The C.I.D.S. should also satisfy a large percentage of Maryland residents including dropouts, students, career changers, military transferees, the unemployed, handicapped persons, incarcerated individuals, displaced workers and other adults. The different informational needs should be satisfied through a Maryland C.I.D.S. with a common format.

This study began in September, 1988 to determine what level of usage is needed by different users and to define the system that can provide the common data elements.

This study was commissioned by the Maryland State Occupational Information Coordinating Committee (SOICC). Serving on the SOICC are mandated agencies to be responsible for the Basic Assistance Grant provided by the National Occupational Information Coordinating Committee to sponsor state C.I.D.S. The agencies are: the Governor's Employment and Training Council (GETC); Department of Education, Division of Vocational Education; Department of Education, Division of Vocational Rehabilitation and the Department of Economic and Employment Development (D.E.E.D.). SOICC members formulated a Technical Steering Group (TSG)to help review INFORM and other career information delivery systems.

NATIONAL C.I.D.S. ACTIVITIES

In the National Occupation Information Coordinating Committee Status of the NOICC/SOICC Network reference book (June 30, 1987), it is reported that 38 states have implemented microcomputer-based occupational information systems. An additional seven states either have in place or are implementing mainframe computer OIS systems. Forty-six states now have computer-based career information delivery systems. These systems served six to eight million people in PY 1986 at approximately 15,000 sites nationwide.

METHODOLOGY

Five major activities or sub-studies were planned and carried out.

(1.) Surveys of User Satisfaction (Attachments A, B, and C): Current users of the INFORM system were surveyed to determine the current level of user satisfaction. Secondly, middle schools, libraries, correctional institutions and vocational rehabilitation centers were sent C.I.D.S. User Study Survey forms to complete. In some cases, clearance had to be obtained and the survey form approved by school districts participating in the study. Guidance coordinators in each of the twenty-four Maryland counties were notified of the intended study. Their assistance and approval were acquired before initiating the actual study.

The C.I.D.S. User Study Survey form for schools was developed in consultation with a doctoral degree administrator in the Management Information and Accountability Section of the Maryland Department of Education, Division of Vocational Education. The form was then reviewed by a specialist in the Division of Special Educational and Support Services of the Maryland State Department of Education before submission to the schools. Questions on the survey form were formulated after a review of Delaware and Rhode Island similar studies. Information components were also obtained by a review of C.I.D.S. literature.

(2.) The Site Visits: Selected schools and community colleges using the INFORM system were visited and interviewed by the SOICC coordinator and members of the Maryland Occupational Information Coordinating Committee Technical Steering Group (TSG). Interviews were conducted with counselors in a variety of settings using the different C.I.D.S.

(3.) Demonstration of C.I.D.S.: Monthly TSG meetings were held at the Department of Economic and Employment Development, Division of Employment and Training, 1100 North Eutaw Street, Baltimore, Maryland 21201, Room 600. These meetings allowed the Technical Steering Group to review C.I.D.S. systems through demonstrations and presentations. Technical Steering Group members were also provided with brochures, demonstration disks, personal appointments for personal presentations, and a list of system users to contact. Participating in this major phase of the study were the following vendors.

INFORMATION	- Information Network for Occupational Resources in Maryland
GIS	- Guidance Information System
DISCOVER	
SIGI	- System of Interactive Guidance and Information
COIN	- Coordinated Occupational Information Network
CIS	- Career Information System

(4.) Request for Information from Vendors (Attachment D): Vendors were sent an information survey form to supply pricing information. Each vendor was also asked to supply the SOICC Coordinator with sample printouts of the occupational description for guidance counselor and a college description printout for Chesapeake College in Wye Mills, Maryland. The request for information sent to each vendor asked each vendor to supply the same descriptive data in order to facilitate a comparative analysis.

(5.) Comparative Study of System Components (Attachment E): A system evaluation form was developed and administered by the SOICC Coordinator and a member of the TSG. The same form was used to collect comparative data on the C.I.D.S.

(6.) Principal Satisfaction Survey (Attachment B): A Principal User Survey Form was sent to each principal of the INFORM user schools. The information components and design considerations were modeled after a New York Study which utilized national and state panels of experts to validate the surveys. Also, this form was intentionally designed to yield much of the same information as that on the C.I.D.S. User Survey form for verification and supplemental purposes.

DESIGN OF THE STUDY

Separate letters were written to guidance coordinators, guidance counselors, school principals, and librarians using DATABASE III PLUS. In addition, stamped self-addressed envelopes were provided for convenience in responding to the survey. To assure returns, the SOICC Coordinator attended a Maryland State Department of Education guidance coordinator meeting to explain the purpose of the study to guidance coordinators and to acquire assistance in assuring returns would be received.

Each survey form was pre-numbered and entered into a log. Dates were recorded whenever surveys were returned. Second request letters were sent to reach a 70% or higher response rate. All survey response data were then entered using LOTUS 123. The LOTUS matrix required a minimum of 400 rows and 85 columns of response data.

In addition to surveying schools, libraries, correctional institutions and community colleges which were using INFORM, visits were made to sites in which the various systems including INFORM were being utilized. The purpose of the visits was to examine the systems in schools and agencies and to query counselors about their opinions of the systems on an informal basis. The visits also allowed for personal observation of the C.I.D.S. in practical use.

Site visits were made to a total of twelve schools. The schools visited by the SOICC Coordinator and TSG members were: (See Appendix Section I for Site Visit Reports)

Anne Arundel Applied Technology Center
Prince George's William Paca School
Polytechnic Institute in Baltimore City
Western High School in Baltimore City
Col. Magruder High School
Chesapeake High School in Pasadena, MD
Harford Vocational-Technical High School
Southern High School in Harwood, MD

Site visits were also made to seven community colleges by the SOICC Coordinator which included:

Allegany Community College
Community College of Baltimore
Catonsville Community College
Howard Community College
Chesapeake College (to conduct Workshop)
Wor-Wic Tec
Harford Community College

The information obtained from the site visits confirmed and reinforced the findings concerning information components and system design considerations obtained from the surveys.

Seventeen community colleges were sent letters and survey forms. Thirteen responses (76% return rate) were received from the following community college career centers and/or displaced homemaker projects.

Catonsville Community College Project Second Start
Allegancy Community College CareerPath
Chesapeake College
Charles County CC Career Services
Cecil Community College Career Center
Wor-Wic Tec Step Two Project
Howard Community College SEQUEL Project
Garrett Community College
Hagerstown Jr College Chapter II
Anne Arundel Career Resource Center
Prince George's Community College

PROCESSES

Processes for evaluating and rating the C.I.D.S., analyzing the comprehensiveness of and accuracy of C.I.D.S. information, and a review of system features were developed and used for measuring the part and total value of each system. It was necessary to determine each system strengths and weaknesses in different aspects: INFORMATION COMPONENTS CONTAINED; SYSTEM DESIGN CONSIDERATIONS; USER SUPPORT MATERIALS; INFORMATION COMPREHENSIVENESS; COST; USER SATISFACTION; VOCABULARY; READING LEVEL; TIME OF DATA UPDATES; AVAILABILITY AND ADEQUACY OF TRAINING; SYSTEM SUPPORT; AND THE DEGREE OF INCLUSION OF NEW AND EMERGING OCCUPATIONS.

The reading level of the C.I.D.S. must be such that the user can make maximum use of the materials and information.

The Association of Computer-Based Systems for Career Information (ACSCI) has issued a publication dealing with standards for career information delivery systems. Maryland is currently seeking full membership in ACSCI. ACSCI provided the SOICC Coordinator with the publications dealing with standards for computerized career information delivery systems. These documents outline criteria to be followed for the establishment of a high-quality system which meets the needs of a broad base of users. The standards were reviewed and incorporated in the Maryland C.I.D.S. study. (See ACSCI Standards Appendix Section II)

RESPONSES

A total of 338 FORM users including principals, counselors, librarians, and vocational rehabilitation counselors were surveyed to determine their level of satisfaction.

A total of 243 (n=243) responses were received for a RESPONSE RATE OF 72%.

REVIEW OF THE LITERATURE

All 57 SOICCs and the National Occupational Information Coordinating Committee were contacted and asked to send information on State C.I.D.S. This literature which included descriptions of other State C.I.D.S., system comparative studies, and other data was carefully reviewed, and were possible, incorporated in Maryland's study.

It was learned from the literature that most state C.I.D.S. are supplemented by tabloids containing occupation information, job search data and career search tips.

It was noted that several major systems have been offered for 5 to 15 years, and that education software catalogues reflect a proliferation of systems.

Most C.I.D.S. that contain computerized presentation of career information contain routines which allow students to go through a structured search to find occupations which match their needs and interests, to obtain detailed information about occupations, to find occupations which are related to others, and to make comparisons between occupations.

The ideal C.I.D.S. would emulate realistic counseling sessions, allow a student to progress slowly, and the counselor to retrieve database information for reference in subsequent sessions. However, counselors do not have enough time to use a cumbersome system adequately with counselor loads of 1/350 or 1/400 per counselor along with other duties to perform.

Career information literature also showed that although the need for and use of all types of career planning information are evidently needed to support the guidance activities required of each school district, specific information components include the following data elements.

OCCUPATIONAL INFORMATION:

Occupational Title
Occupational Description
Occupational Groups or Clusters
Interests
Aptitudes
Temperaments
Entry Level Skills Required
Job Duties
Education and Training Required
Related Secondary School Subjects
Related Occupations
Job Seeking Skills
Links to Published Assessment Instruments

EDUCATIONAL INFORMATION:

High School Areas of Concentration
Name and Address of Colleges or Training Centers
Admission Requirements
Education and Training Programs Offered
Occupations for Which Education and Training Programs Train
Financial Aid Information

The literature confirmed "computer-assisted occupational information systems have introduced a new and more interesting mode of presentation" (Baehrman, et. al., 1982). It can be substantiated through the literature that a computerized career information delivery system as a counseling tool assists both young people and adults in the processes of career exploration and decision making with counselor assistance and intervention. (For further information on the questions of the validity and reliabilty of computerized guidance, please see the Reference List on pps. 33-34.) In general, there was agreement that computerized systems are an excellent counselor tool, because vast amounts of information can be stored and made readily available to users. However, counselors stressed the caution that it should be remembered that a C.I.D.S. is only a tool. It cannot and should not take the place of the counselor; personal intervention by the counselor is essential.

The literature review also involved an indepth synthesis of the New York State Department of Education C.I.D.S. study. Counselors surveyed in New York revealed that the ideal length of time for a session was 34 minutes. The figures supplied by vendors and through hands-on experience using the C.I.D.S. are:

DISCOVER:	5 to 60 minutes
SIGI:	2 1/2 to 3 hours
GIS:	15 TO 30 Minutes
COIN:	15 to 30 Minutes
INFORM:	15 to 30 Minutes

VENDOR INFORMATION AND PARTICIPATION

Six selected vendors participated in the presentations and demonstrations to the Technical Steering Group. The letters of invitation sent to the vendors stipulated the requirements of participation. Vendors were asked to supply current printouts from their C.I.D.S. on a particular occupation and a particular institution. In addition, vendors were asked to identify all the current users of their systems in Maryland. Vendors were asked during the presentations to describe or show any delivery media currently available and workable which would facilitate classroom delivery of occupational exploration and occupational information retrieval.

Most vendors have developed a paper and pen assessment which would arrive at a score which can then be batch processed by the C.I.D.S. counselor. Also, most vendors mentioned the use of the microcomputer projection on to a large screen.

To simulate the actual counselor process, various TSG members interacted with the computerized guidance systems.

To keep the study objective, no representative from any other C.I.D.S. was present during any of the oral presentations. The presentations were followed by group evaluation and rating sheets. Vendors were also asked about the feasilibiltiy of adding State data to existing files and creating new files. In most cases, local data would be State supplied and validated.

OTHER COMPUTER-BASED C.I.D.S. SYSTEMS

During the course of the study other commercial and non-commercial computer-based systems which assist people in some phases of career planning were brought to the attention of the TSG. These systems included:

Virginia VIEW
West Virginia ACE
CIS - Career Information System

It is clear that more and more C.I.D.S. exist in computerized forms in the competitive and non-competitive environments. Unfortunately, the NOICC grant process and timelines for MOICC operations will not allow total investigation of all such C.I.D.S. However, Maryland's MOICC chose the more reputable and quality ones for review in this study.

C.I.D.S. DESIGN COMPONENTS

An ideal occupational information delivery system is one that can:

1. Make information accessible to persons of varying ability and experience
2. Provide a means for integrating occupational information with clients' interests, values, aptitudes, and abilities
3. Use the media that are most appropriate for the particular kinds of information
4. Display and/or deliver information in an attractive manner
5. Provide accurate and current information, including capacity for updating
6. Supply local as well as national data
7. Provide information concerning a wide variety of occupational groups
8. Include such specific information as: (a) job duties; (b) work environments; (c) hiring and training requirements; (d) terms of employment; (e) hours; (f) current labor market situation; and (g) long-range outlook

Procedures for Evaluating C.I.D.S.

The procedure for rating C.I.D.S. which was developed for use in this study can be used by any person or group wishing to evaluate a system against established standards. The standards used in this study were provided by the National Occupational Information Coordinating Committee, the U.S. Department of Labor, and the Association of Computer-Based Systems for Career Information (ACSCI).

Step 1: Collect information from users of C.I.D.S. concerning their system's information components, system design features, support materials and training.

Step 2: Collect printouts from the vendors of C.I.D.S. which contain information about one occupation and one college contained in their systems. Specify an occupation and a college the C.I.D.S. should contain and about which you can get reliable information.

Step 3: Plan and conduct meetings in which the vendors demonstrate their system to the members of the Technical Steering Group which represents persons who use C.I.D.S. and other agency and school personnel.

Step 4: Follow the vendor presentations with rating sheets to be completed by TSG members. Total the ratings submitted by the Technical Steering Group. (See Attachment entitled "Vendor Information Survey")

System Standards

Operating standards for accessing and dissemination which should be met by a career information systems according to the U.S. Department of Labor are as follows.

1. The delivery system should be demonstrably effective with persons of varying ability and experience.

2. System components should be user-operable so that independent usage may be fostered....The client will need little or no assistance in using them.

3. A booklet or set of instructions on how to use the various components should be available to clients using the system.

4. Varied media should be used to disseminate information... The various media, however, should be components of an integrated delivery system.

5. Hardware components required should be standard equipment that is reliable, widely available, and applicable to a variety of users.

6. The delivery system must be able to provide a copy of a summary of its basic information to the user.

7. The delivery system should be able to house all information related to the topics listed for information development, including localized information.

8. The system must have an updating capability so that new information can be entered into the system and made available to users within at least six months of the time it becomes available.

9. The user should be able to obtain the information desired before leaving the system.

10. The accessing strategies or approaches used to obtain information should be available as part of the counseling and instructional processes.

11. The system should be as accessible as possible for use throughout all or most of a user agency's regularly scheduled day.

12. Costs for the delivery system should be at a level per user which will make it feasible for the user agencies or local or State governments to support them financially.

National Occupational Information Coordinating Committee (NOICC) reported in 1986 that accessing strategies for a computerized career information delivery system should include both:

1. Direct Search: This is a method for users who know the name of a specific record: e.g., school or occupation, and use the name to "look up" and obtain information on this record by using a file title index.

2. Structured Search: This is a method for users who do not know which record (usually an occupational title) to explore. The structured search provides such users with a sorting mechanism by which they may identify and record their personal preferences and obtain a list of related occupational titles to explore.

The Association of Computer-Based Systems for Career Information (ACSCI) also has issued standards for a computerized career information delivery system. These standards have been summarized to include:

1. The delivery system should be demonstrably effective with persons of varying ability and experience.

2. The delivery system should present information in an attractive and interesting manner so as to motivate users to continue use of the system and to further explore occupational areas.

3. The delivery system components should be user-operable so that independent usage may be fostered.

4. The system should provide user agencies with booklets or sets of instructions on how to use the various components for distribution to users. Such instructions should include directions for operating the various hardware components and descriptions of the information files available in the system. The instructions should be written at a reading level appropriate to a wide variety of intended users.

5. The statement made in one medium should be consistent and compatible with those made in other files or media.

6. Any delivery system hardware components required should be standard equipment that is reliable, widely available, and applicable to a variety of users.

7. The delivery system must be able to provide a copy of a summary of its basic information to the user for future reference.

8. The delivery system should be able to house all information related to the topics listed for information development, including localized information.

9. The system must have updating capability so that new information can be entered into the system and made available to users within at least six months of the time it becomes available.

10. The user should be able to obtain the information desired which is available through that medium of delivery before leaving the system.

11. The accessing strategies or approaches used to obtain information should be available both in a direct access and a structured search mode depending on the preferences of the user.

12. If the accessing strategy provides for the use of a client's records (e.g., test scores, class rank, interest inventories, etc.), the client should be aware of all test scores and personal records which are input into the system.

13. The delivery system should be available and accessible to adequately serve the user site.

14. Costs for the delivery system components should be at a level per user which will make it feasible for user agencies or local or state governments to support them financially.

It should be noted that system support services and training are important components of a system if the information in that system is to be of maximum benefits to the clients of a school or agency. The availability and quality of initial and on-going training for counselors and support staff on the information components along with the use and uses of a computerized career information delivery system must be considered as an important part of a system.

The system and information components which emerged as being important to counselors included:

1. The client and counselor manuals should be complete and easy to use.

2. Training should be adequate to prepare counselors to make maximum use of the C.I.D.S.

3. The C.I.D.S. should be easy for the clients to use; should be user friendly.

4. The computer printouts should be readable, easy to understand, and clear as to what information is being given.

5. The language contained in the C.I.D.S. should be at a level which clients can understand.

6. The C.I.D.S. should be designed to be very flexible, with several routines and ways to get at information.

7. It should contain good links to available printed resources.

8. The search routine in C.I.D.S. should be well designed so the results make sense to the users.

9. The information about occupations must be accurate, current, interesting and useful.

10. The information about colleges should be kept up-to-date, complete, and accurate.

11. Information about financial aid is important.

12. The length of and average sessions should fit into a class period.

Current National C.I.D.S. Format

As mentioned in the National C.I.D.S. Activities section of this study, 44 states currently utilize microcomputers for C.I.D.S. The most obvious advantage of the microcomputer is cost. "It is considerably cheaper to go with a microcomputer version of a state-wide system that involves the locals' buying and accessing their own equipment rather than running through a central mainframe that requires administrative support.... There is also the advantage of convenience to the user since there are many programs that can be used in addition to the C.I.D.S. software program, which make the computer more cost-effective than the mainframe (Williams, 1981).

The microcomputer offers several advantages over other technologies. "The initial cost of a floppy disk system is competitive with the cost to an agency of the annual lease of a computer terminal and the costs of accessing the C.I.D.S. on a time-shared mini-computer. Where a time-shared computer is accessed over long-distance telephone lines, or where computer charge rates are high, stand-alone microcomputers can offer substantial economies, especially over a three- or four-year period." (Beisse, 1981)

Chart I

COMPUTERIZED EQUIPMENT:	C.I.D.S. NO. OF USERS	USERS' PERCENTAGE
APPLE PC	75	77%
FICHE READER	36	37%
IBM HARD DISK	28	29%
HP MAINFRAME	22	23%
APPLE NETWORK	21	22%
IBM NETWORK	14	14%
RADIO SHACK	12	12%
OTHER*	5	5%

TOTALS:

COMPUTERIZED:	97
NO COMPUTERS:	93
SATISFIED:	79
UNSATSIFIED:	69

*OTHER INCLUDES WICAT; EPSON; COMPUTERIZED PETERSON'S GUIDE; COMPUTERIZED COLLEGES AND OCCUPATIONAL SEARCHES; COMPUTERIZED SELF-ASSESSMENTS

OUT OF THE 186 SCHOOLS RESPONDING, 97 UTILIZED C.I.D.S.; OVER 50% OF SCHOOLS WITH COMPUTERIZED C.I.D.S. WERE SATISFIED; BUT THIS MEANT ONLY ONE QUARTER (1/4) OF THE TOTAL SCHOOLS RESPONDING WERE SATISIFIED WITH THEIR CURRENT C.I.D.S. FORMAT.

Chart II

SYSTEM:	NO. OF USERS	PERCENTAGE
INFORM	113	39%
MANUAL SYSTEM	58	20%
GIS	44	15%
COIN	38	13%
OTHER	18	6%
DIME	17	6%
DISCOVER	2	1%
SIGI	0	0%

THERE WERE A TOTAL OF 290 C.I.D.S. SYSTEMS. SOME SCHOOLS UTILIZED MULTIPLE METHODS FOR DELIVERY CAREER INFORMATION. IT SHOULD BE NOTED THAT INFORM IS PROVIDED FREE TO SCHOOLS BY THE MARYLAND STATE DEPARTMENT OF EDUCATION, DIVISION OF VOCATIONAL EDUCATION.

Chart III

C.I.D.S. TRAINING NEEDS

GUIDANCE COUNSELOR	71	73%
STUDENTS	53	55%
TEACHERS	31	31%
ADM./PLANNERS	29	30%
GENERAL PUBLIC	21	22%

WHEN ASKED WHO NEEDED TRAINING TO UTILIZE C.I.D.S., COUNSELORS OVERWHELMINGLY REQUESTED TRAINING.

Chart IV

NATURE OF PROBLEM	REPORTED CASES	PERCENTAGE
EQUIPMENT*	26	27%
QUALITY OF INFO.	20	21%
STAFFING	12	12%
STAFF TRAINING	12	12%
SCHEDULING USE	12	12%
OUTDATED FILES	8	8%
NO PROBLEMS	7	7%

*EQUIPMENT PROBLEMS INCLUDED: TECHNICAL DIFFICULTIES PRINTING; EQUIPMENT MALFUNCTIONING; FLUENCY OF PROGRAM INTERRUPTED AND TERMINATED; AND LACK OF PROPER EQUIPMENT UNITS.

Chart V

SYSTEM:	TIMES PREFERRED:	PERCENTAGE
NO PREFERENCE	31	32%
INFORM PC	22	23%
CURRENT INFORM	4	4%
INFORM MAINFRAM	4	4%
GIS PC	14	14%
GIS MAINFRAME	10	10%
DISCOVER PC	4	4%
DISCOVER MAINFR	0	0%
COIN PC	3	3%
COIN MAINFRAME	0	0%
SIGI PC	2	2%
SIGI MAINFRAME	0	0%
OTHER	3	3%

C.I.D.S. USERS PREFER TO HAVE INFORM ENHANCED INTO A MICROCOMPUTER FORMAT.

CHART VI

DATA TYPES REQUESTED

COLLEGES	2.2222222E+22	
OCCUPATIONAL	487	87%
INTEREST INVENTORY	479	86%
JOB OUTLOOK	471	84%
VOC ED PROGRAMS	459	82%
TRADE & TECH SCHOOLS	448	80%
APTITUDE TESTS	447	80%
FINANCIAL AID	446	80%
JOB OPENINGS	424	76%
APPRENTICESHIP INFO	416	75%
MILITARY	395	71%
INTERNSHIP INFO	378	68%
GOALS & VALUES	341	61%
VOLUNTEER INFO	310	56%
OTHER DATA	25	4%

TOTAL POSSIBLE POINTS FOR REQUESTED DATA TYPES WAS: 558.
THE MOST COMMON DATA TYPE ITEMS REQUESTED WERE COLLEGE DESCRIPTIONS AND OCCUPATIONAL DESCRIPTIONS, ESPECIALLY MARYLAND SPECIFIC DATA.

CHART VII

C.I.D.S. USERS

COLLEGE BOUND	67	69%
GUIDANCE COUN.	64	66%
STU. GR. 10-12	59	61%
SPECIAL STUD.	45	46%
TEACHERS	42	43%
JOB SEEKERS	38	39%
STU. GR. 7-9	35	36%
ADULTS	34	35%
DROPOUTS	31	32%
CAREER CHANGERS	27	28%
ADMINISTRATORS	22	23%
PROG. PLANNERS	20	21%
DISPLACED WORKER	17	18%
VETERANS	11	11%
STUDENTS-ELEM.	5	5%

THE ABOVE ARE RANK-ORDERED MOST COMMON
USERS OF COMPUTER-ASSISTED CAREER INFORMATION.
BASE EVALUATIVE MEASURE: N=186

DISCOVER

Publisher:
American College Testing, 701 Howe Ave, Suite h-58,
Sacramento, CA 95825 (916) 921-2323

Cost:
$1750 each year for the first site. (Price is subject to change) Fees decrease for multiple site contracts.

Computers:
IBM PC with a 10mg hard disk; Apple II with CPM and a Corvus Hard Disk; TRS-80 Models II, 12, 16

Descrption:

1. Beginning the career journey (assessing the user's career planning needs)
2. Learning about the World of Work (introduces ACT's World of Work Map)
3. Learning about yourself (offers interests, abilities, values, and experiences inventories on-line or accepts scores from paper-and-pencil inventories)
4. Finding occupations (lists occupations based on Module 3 results, or Majors, and Job Characteristics, then helps user to narrow the list)
5. Learning about occupations (offers 15 topics for each of 450 occupations) (localization will be possible so that sites can add local data as an additional topic)
6. Making educational choices (explains training paths for the occupations selected)
7. Planning next steps (searches for colleges and financial aid, or helps with a resume, cover letter, and job application).

Administrative reports provided by the program include a summary of the evaluation data collected from users before the log-off and lists of users arranged by occupations explored, colleges explored, etc.

DISCOVER Strengths:

Wide variety of self-assessment tools. Extensive programming guides users through large portions of the career planning process. Information on 450 occupations is comprehensive (15 topics) with complete two- and four-year college information. Administrative reports provided by the program include a summary of the evaluation data collected from users before the log-off and lists of users arranged by occupations explored, colleges explored, etc. Two versions are available, allowing tailoring to the types of clients served by the site.

DISCOVER Weaknesses:

Assessment information can be misinterpreted if counselor assistance is not available. Only national occupational data is provided. The "Information Only" path for clients is lengthy and complex. DISCOVER is best used by the client who wants comprehensive career planning assistance.

Counselor Reaction:

DISCOVER representatives market its product primarily among post-secondary institutions. Consequently, only 1% surveyed were DISCOVER users and 4% of the counselors surveyed preferred to use DISCOVER software. (SEE CHARTS II AND V)

DISCOVER for Colleges and Adults

Note: This DISCOVER is the same DISCOVER for high schools except that there are two more modules:

8. Planning your career (uses the Career Rainbow to describe the role of a job in the user's life)
9. Making transitions (assesses the stress level the user is experiencing and ways to moderate stress)

DISCOVER includes files on military training programs and vocational/technical schools in addition to extensive files on two-year and four-year colleges for both adult and high school users.

GIS: GUIDANCE INFORMATION SYSTEM

Publisher:
Houghton Mifflin, 2225 E. Randal Mill Rd., Suite 530,
Arlington, TX 76011, (817) 649-5254

Cost:
Annual Fees: 1 to 3 sites $1950, 4 to 5 sites $1703,
6 to 10 sites $1482, etc. (Prices are subject to change)
Additional files: CDM $399

Computers:
IBM PC with a 10 mg hard disk, or Apple IIe with a 10mg hard disk; Various mainframes and mini-computers

Description:

GIS contains information for career and educational decision making, and a logical structure to allow users to manipulate this data. It contains these files:

	#of Items	#of Attributes
Occupations (Civilian)	1025	314
Armed Forces Occupations	100	43
Two-Year Colleges	1700	681
Four-Year Colleges	1700	975
Graduate & Professional Sch	1500	872
Financial Aids	700	371

Each file can be searched using the same commands. At the beginning of a search, all items are placed on the list. As attributes are selected, the items which do not match are removed from the list. The user can select attributes until the list is short enough to be printed. Each item in each file has a short explanation written specifically for the item, plus a list of the attributes for the item. For example, each occupation has a short but comprehensive description, plus a list of the attributes which apply to that occupation.

GIS Strengths:

A large number of occupations and educational institutions are included, with a wide variety of searchable attributes for each file and a consistent logical structure. Searches are very fast for experienced users. Information is rapidly accessible, allowing more clients to use one computer.

GIS Weaknesses:

Requires logical ability beyond the typical high school student. No self-assessment tools are included and no search strategy is provided. (The Career Decision Making module may be added for an additional fee.) Information is provided without assistance in evaluating the information or using it in the decision-making process.

Counselor Reaction to GIS:

GIS software is widely used more in Maryland. The survey revealed 15% of the 97 C.I.D.S. users surveyed used GIS. Of that number, 79% were satisfied. Out of the total surveyed 24% of the respondents preferred to use GIS.

The overall reaction to the GIS software was supportive and enthusiastic. Counselors felt that GIS is an excellent tool for college counseling, especially in comparison with trying to keep 1,000 college catalogs updated.

None of the C.I.D.S. involved in this study were 100% perfect. Consequently, counselors expressed particular concerns with the quality and timeliness of the information in the GIS. There were also problems regarding training of staff to properly operate the GIS. Many also felt GIS software contained printing problems that made output printing from the screens too slow. In a few instances, due to high cost the use of GIS was discontinued.

SIGI PLUS

Publisher:
Educational Testing Service, P.O. Box 23060, Oakland, CA 94623, (415) 653-5400

Cost:
Annual Fees: 1 year contract $1375; 2 year contract $1225; 3 year contract $1075; additional units at the same site $695 (Price is subject to change)

Computers:

IBM PC with a 10mg hard disk; TRS-80 Modules II, 12, 16, and 16B; VAX 11/780 with VMS Operating System

Description:

1. INTRODUCTION (assesses the career planning needs of the user)
2. SELF-ASSESSMENT (offers values, interest, and activity inventories on-line)
3. SEARCH (uses results from previous inventories or self-report to narrow the list of occupations)
4. INFORMATION (offers 27 questions on each of 233 occupations, with option of printing two occupations side-by-side) (local data can be added by site)
5. SKILLS (lists skills needed by occupations selected for self-rating by user)
6. PREPARING (explains typical paths for entering occupations and lets user self-assess the likelihood of completing that path).
7. COPING (suggestions on dealing with common problems, like financial need, credit for prior learning, finding information, etc.)
8. DECIDING (lets user list the top options, assess the probability of success and the rewards, and see which option sounds best)
9. NEXT STEPS (offers help with resume writing and networking, and allows user to build a plan of action)

SIGI Strengths:

A wide variety of self-assessment tools offered. Information about occupations is comprehensive, with detailed coverage of value-related topics. The SIGI includes good follow-through from career planning to next steps, and covers the entire career planning process. It also offers training in decision-making skills. SIGI allows for the creation of a client record which can be stored and retrieved at subsequent counseling sessions.

SIGI Weaknesses:

The SIGI list of occupations is most relevant to college students. Only national data provided (local data must be added by local site). Assessment information can be misinterpreted if counselor assistance is not available. Although clients can go straight to the information, SIGI is best used by the client who wants comprehensive career planning assistance. SIGI DOES NOT CONTAIN FILES FOR NATIONAL OR LOCAL COLLEGE DATA. Because of the complexity of the program, SIGI is best used in adult counseling settings including colleges and universities, public libraries, businesses and private career counseling agencies.

Counselor Reaction:

Out of the 97 C.I.D.S. users surveyed, 0% of the schools surveyed used SIGI. Only 2% preferred SIGI when asked what C.I.D.S. System school counselors preferred to use.

However, counselors like SIGI because it provides helpful guidance for a nonexperienced computer user. SIGI requires a lot of time at the beginning for self-assessment. Most other comments were negative because most counselors don't have time to do this activity -- nor do students. Printing on the screen is also slow.

INFORM

Information Network for Occupational Resources in Maryland (INFORM) is currently the State supported C.I.D.S.

Publisher
Maryland New Directions Inc., 2517 North Charles Street, Baltimore, Maryland 21218, (301) 235-8800.

Cost:
Microfiche $275 per fiche set (Price is subject to change)

Computers:
INFORM has been programmed for computer use by Data Networks and is incorporated into software called D.I.M.E.

Description:
(1.) College information may be directly accessed or through an alphabetic search or numeric search
(2.) Occupational information may be accessed through a structured system search or direct access
(3.) User describes if he/she wants to work with DATA, PEOPLE or THINGS
(4.) User identifies INTERESTS, AREAS OF WORK, PHYSICAL STRENGTH, PHYSICAL CAPABILITIES, WORKING CONDITIONS, EDUCATION AND TEMPERAMENTS
(5.) When user describes whether he/she wants to work Inside, Outside or Both, "Both" must be used with caution for the system will search for occupations where the worker is both indoors and outdoors eliminating a broad range of occupations.
(6.) Structured search parameters may be narrowed by the use of "AND" or broaden by the use of "OR".

Strengths of the INFORM Microfiche

Schools that cannot afford computers would like to continue to receive INFORM in mircofiche format. The study revealed INFORM microfiche was used by 113 or 61% of the school users.

Weaknesses of the INFORM Microfiche

It is time consuming to perform a paper/pen interest/aptitude assessment prior to conducting the scan search. The microfiche has to then be inserted into a microfiche reader to obtain the information. The data on the microfiche have to be moved around in order to see the full page. Most schools, libraries, and community colleges were INFORM is located did not possess a microfiche printer.

Counselor Reaction to INFORM/DIME

The surveys showed that in many cases INFORM microfiche sets were not being utilized. This confirms the finding that 69% were dissatisfied with the microfiche format. When it was used, it was needed primarily for Maryland information and local data. In 26 cases, INFORM microfiche was often used as a supplement to the C.I.D.S. GIS System for a resource to Maryland specific data.

Specifically, counselors felt microfiche readers were too cumbersome to utilize, printing was limited to a microfiche printer that few schools possessed, the microfiche technology was "behind the times", and students were bored by reading and moving information around the microfiche screens. The requirement to write the INFORM information to take home with them or back to class was also an undesirable INFORM feature. Generally, it was felt microfice was too difficult to handle.

Among the 97 C.I.D.S. users who responded, there was strong support for INFORM as a computerized system. Of the counselors surveyed, 26% preferred to utilize INFORM in a computerized VERSION and 4% preferred to continue to use INFORM in the current microfiche format. These percentages represent the highest preference for any one particular C.I.D.S.

D.I.M.E. software contains the computerized INFORM program. Since this system is not State supported, its use is fairly new to Maryland. The D.I.M.E. system was either just installed or scheduled to be installed into Harford, Montgomery, and Dorchester county schools and into Baltimore City Walbrook High School. Consequently, it was too early to measure its impact and level of satisfaction among the 17 Maryland D.I.M.E. users.

However, programming flaws were reported among the current D.I.M.E. users. Specifically, counselors expressed particular concerns with the adequacy and fluency of the D.I.M.E. program.

MANUAL SYSTEMS

Out of the 186 schools which responded to the survey, 53 schools or 20% indicated they were not using a C.I.D.S. system of any kind. Their career guidance activities consisted primarily of using reference books such as the: Dictionary of Occupational Titles, the Occupational Outlook Handbook and others.

Among the manual users, there was a strong preference for a State supported C.I.D.S.

COIN

COORDINATED OCCUPATIONAL INFORMATION NETWORK

Publisher
Dr. Rod W. Durgin, Ph.D., President
COIN Educational Products, 3361 Executive Parkway,
Suite 302, Toledo, Ohio 43606 (419) 536-5353

Description

COIN's database is comprehensive and covers over 13,000 pages of completely cross-referenced career and education information. The data base is divided into six files:

(1.) CAREERS
(2.) POSTSECONDARY SCHOOLS
(3.) COLLEGE MAJORS/VOCATIONAL PROGRAMS
(4.) MILITARY JOBS
(5.) APPRENTICESHIPS
(6.) SCHOOL SUBJECTS

All variables students select from to build their profiles are defined on screen. Students may choose options and "erase" them at any time in their search and retrieval process. Users can also call up their personal profiles at any time.

The database is revised and updated annually in the summer to keep the information current and accurate. The database works for all students. Career guidance data covers information pertinent for high school drop-outs to college bound students. The COIN system is appropriate for the inner-city school as well as affluent areas.

Students complete an on-screen assessment inventory to creaste personal profiles. The computer then "matches" the student profile with the appropriate jobs and/or schools.

Data can be accessed using the occupational or educational "search systems" or through directly retrieving specific information on particular schools or jobs.

COIN Strengths:

Accessing data is simple. "Student-friendly", step-by-step instructions are embedded in all COIN delivery systems. No special training or counselor assistance is required for students to run COIN.

COIN Weakness:

An index is used with the floppy disk system when students want to look up a particular school or job. COIN C.I.D.S.is located in Ohio and not widely marketed or utilized in Maryland.

Counselor Reaction:

Of the 97 C.I.D.S. users who responded to the survey, COIN was utilized among 38 of the user schools or 13%. When it was used, it supplemented the INFORM microfiche system mainly through miccrofiche readers.

When asked which C.I.D.S. counselors preferred, only 3% chose COIN in the microcomputer format and 0% in a mainframe format.

CIS: CAREER INFORMATION SYSTEM

Publisher
National Career Information System; 1787 Agate Street, University of Oregon; Eugene, OR 97403 (503) 686-3872

Description:

CIS is designed to access computer-stored information via microcomputers, printing terminals, or through a needle-sort card deck with printouts of the system's information in book form. With the system's information stored and accessed in a computer system, state CIS Operators can easily update the information. Computers also allow flexible access to any component at any time.

The following are some of the CIS information components:

USER'S HANDBOOK: A simple guide that makes CIS even easier to operate and provides each user a personal copy of useful information.

QUEST: An introductory questionnaire that allows users to identify occupations that would use their interests, abilities, and personal preferences.

DESCRIPTION FILE: Occupations that represent over 90 percent of a state's employment. The descriptions include job duties, working conditions, hiring requirements, and employment prospects. They can be localized to geographic regions within a state.

BIBLIOGRAPHY FILE: The most pertinent occupational publications.

VISIT FILE: Local people available to discuss their respective occupations with interested individuals.

OWN FILE: The options, advantages, and requirements of working for yourself.

MILITARY OCCUPATIONS: Occupations as they are used in the military.

PREPARATION FILE: Skills and licensing needed to prepare for the occupations, with cross-references to appropriate training.

JOB SEARCH: Information and tips on preparing resumes, researching firms, interviewing, and other job search activities.

PROGRAM FILE: Postsecondary educational programs, including specialties, program objectives, courses, and a list of schools in the state that offer the program.

APPRENTICESHIP: Description of the Apprenticeship Program and how to apply for admission.

SCHOOL FILE: All two-year and four-year colleges and licensed proprietary institutions in the state. Users may compare schools.

NATIONAL SCHOOL FILE (OPTIONAL): Allows users to compare any four-year college and university in the United States.

SCHOOL SORT FILE (OPTIONAL): Enables users to sort the National School File with regard to majors and other characteristics. School Sort screens schools based upon selected criteria. Users may compare schools on a variety of topics.

AID: Information about financial aid programs and how to apply for money to help pay for college.

Computers:
CIS can operate on most microcomputers and large computers which ahve time-shared Fortran. Specifically, CIS is currently operating on: CP/M-based microcomputers, IBM and IBM-type microcomputers; Apple II microcomputers; Hewlett-Packard 3000; DEC-VAX; IBM/CMS; PDP-11, IBM/TSO; Honeywell 6600 series, and the Control Data Cyber.

CIS Strengths:

The Career Information System (CIS) is an information base for career planning. Good national data are available, but important labor market and education data are produced at the state and sub-state levels also. CIS is the delivery system that was designed for state-level operation. State-based CIS Operations currently serve 16 states.

CIS Weaknesses:

CIS is not currently utilized in the State of Maryland. Therefore, no comparative data is available among Maryland users at this time.

SCHOOL SURVEY FINDINGS

Analysis showed that among the 97 computer-assistance career guidance users, that 79% of the systems were satisfactory. In descending order the systems are:

INFORM (D.I.M.E.)
GIS
COIN
SIGI
DISCOVER

This confirmed the level of dissatisfaction with the current format of the INFORM System. There was a high degree of general support for INFORM computerized career information delivery systems expressed by the various user communities.

There were weaknesses and some dissatisfaction identified with most systems, but generally more satisfaction than dissatisfaction for the computer-assisted systems. In many cases, the weaknesses concerning computer-assisted systems were related to equipment problems. The next major problem was the quality of information. Maryland C.I.D.S. users want localized Maryland data as a part of the Maryland C.I.D.S.

There has been a varying degree of investment of private resources in each of the C.I.D.S. by schools and agencies in the State with most purchasing GIS.

Of the 217 schools surveyed,and the 186 respondents, 52% were utilized computerized C.I.D.S.; 39% were using INFORM; 15% GIS; 13% COIN; 6% D.I.M.E.; 6% OTHER; 1% DISCOVER and 0% SIGI.

OTHER systems included Petersen's College Search, Petersen's Self-Assessment, JOB-O, Self-Help, Self-Assessment, College Searches, Video Laser Disc, Occupational Knowledge Software from Educational Software, and other commercial and non-commercial C.I.D.S.

SCHOOL SURVEY SUMMARY

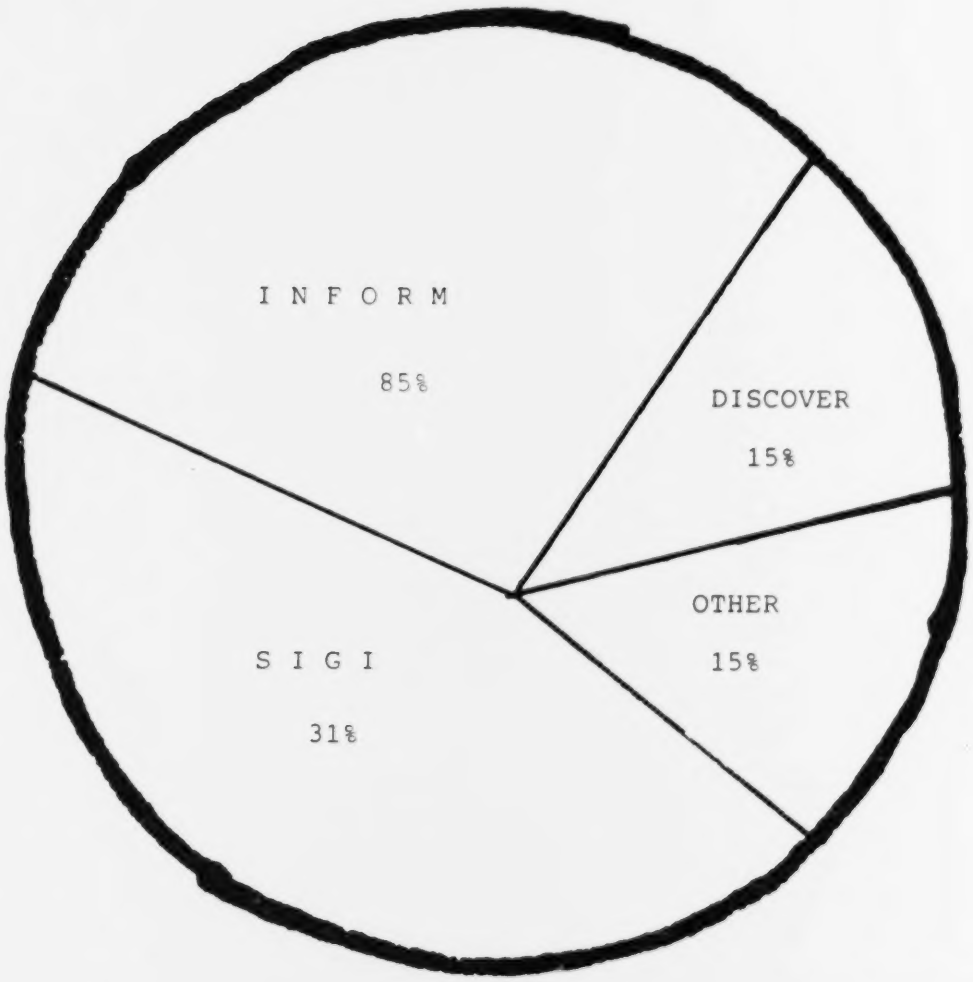
Counselors were highly supportive of computerized career information, but only moderately satisfied with the current C.I.D.S. systems. They were overwhelmingly dissatisfied with the INFORM microfiche.

HOWEVER, WHEN ASKED WHAT C.I.D.S. SYSTEM THEY PREFERRED, THE LARGEST PERCENTAGE OF USERS -- 26% -- FAVORED INFORM IN A COMPUTERIZED FORMAT; 22% DESIRED A MICROCOMPUTER INFORM AND 4% MAINFRAME INFORM FORMAT. (SEE CHART #V)

Maryland New Directions, Inc. is currently under contract to develop and maintain the Maryland career information delivery system. Appendix Section III contains the INFORM Progress Report for the first half of Fiscal Year 1989.

COMMUNITY COLLEGE C.I.D.S. USAGE

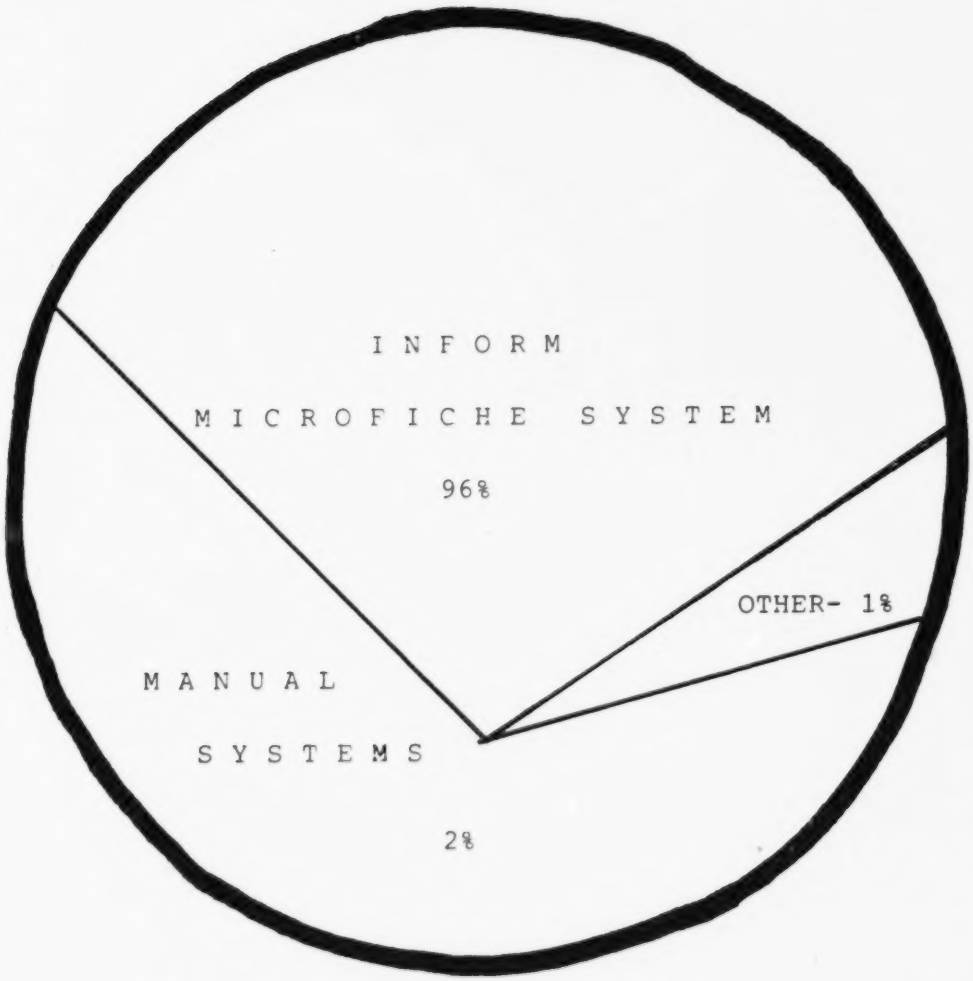
BREAKDOWN



PIE CHART #1

LIBRARY C.I.D.S. USAGE

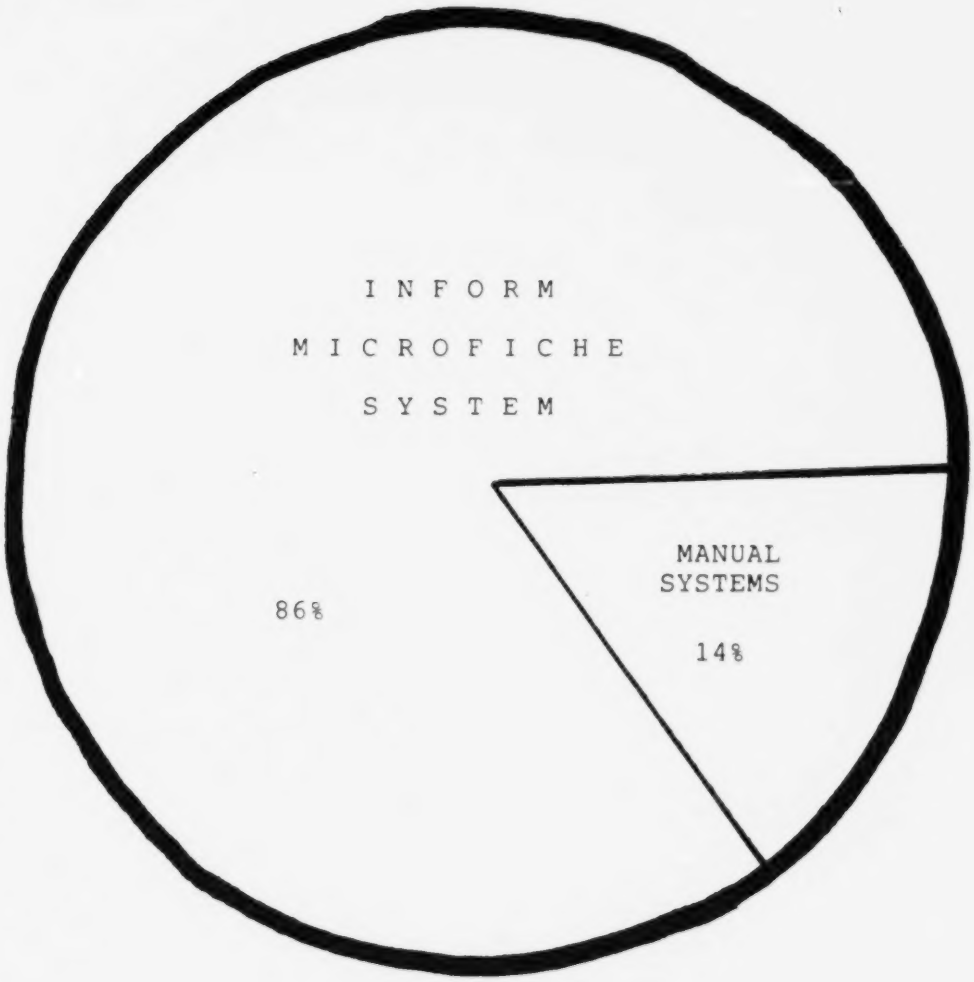
BREAKDOWN



PIE CHART #2

VOCATIONAL REHABILITATION CENTERS
AND OTHER C.I.D.S. USAGE

BREAKDOWN



PIE CHART #3

COMMUNITY COLLEGE FEEDBACK

Seventeen community colleges were surveyed and thirteen community colleges responded (76% response rate). Ten community colleges were utilized computerized C.I.D.S. along with the INFORM microfiche. Fifty percent of the C.I.D.S. users were satisfied among community colleges. The primary computer equipment used were the IBM hard disk unit and the microfiche unit.

SIGI and DISCOVER software packages are very popular among community colleges with most utilizing SIGI supplemented by INFORM microfiche.

Guidance counselors needed training. Data types most desired from a C.I.D.S. are: Military Information; Volunteer Information; Aptitude Assessment; Financial Aid; and Job Openings. Community Colleges responding include:

PRINCE GEORGE'S COMMUNITY COLLEGE
CATONSVILLE COMMUNITY COLLEGE
ALLEGANY COMMUNITY COLLEGE
CHARLES COUNTY COMMUNITY COLLEGE
COMMUNITY COLLEGE OF BALTIMORE
CECIL COMMUNITY COLLEGE;
WOR-WIC TECH COLLEGE
HOWARD COMMUNITY COLLEGE
CHESAPEAKE COLLEGE
ANNE ARUNDEL COMMUNITY COLLEGE
HARFORD COMMUNITY COLLEGE
GARRETT COMMUNITY COLLEGE
HAGERSTOWN JUNIOR COLLEGE

LIBRARIES, VOCATIONAL REHABILITATION AND CORRECTION CENTER C.I.D.S. SURVEY RESPONSES

Twenty-four libraries responded and fourteen vocational rehabilitation and correction institutions responded. The majority (over 70%) of the librarians and counselors were utilizing INFORM on microfiche and were dissatisfied with the INFORM format. However, they found the information in INFORM quite useful.

Librarians and guidance counselors needed training. Information data types needed most were: JOB OPENINGS; APTITUDE ASSESSMENT; JOB OUTLOOK DATA; GOALS AND VALUES ASSESSMENT; TRADE AND TECHNICAL SCHOOL DATA; VOCATIONAL EDUCATION INFORMATION AND APPRENTICESHIP INFORMATION.

RECOMMENDATIONS

The C.I.D.S. Technical Steering Group makes the following recommendations to the State Occupational Information Coordinating Committee.

(1.) MARYLAND SHOULD UTILIZE A COMPUTERIZED C.I.D.S.

(2.) MARYLAND SHOULD ENHANCE THE C.I.D.S. TO INCORPORATE REGIONAL DATA.

(3.) IN ADDITION TO THE NATIONAL FILE DATA, THE C.I.D.S. SHOULD INCLUDE INFORMATION ABOUT MARYLAND LOCAL OCCUPATIONS, SECONDARY AND POST-SECONDARY MARYLAND EDUCATIONAL PROGRAMS, MARYLAND COLLEGES AND UNIVERSITIES, MILITARY OCCUPATIONS IN MARYLAND, MARYLAND INDEPENDENT TRADE SCHOOLS, AND MARYLAND FINANCIAL AID RESOURCES.

(4.) THE MARYLAND C.I.D.S. SHOULD PROVIDE UP-TO-DATE, ACCURATE CAREER INFORMATION AS THE COMPREHENSIVE STATE SYSTEM IN AN EASY TO USE FORMAT.

(5.) THE C.I.D.S. SHOULD BE STATE SUPPORTED AND BE AFFORDABLE AND ACCESSIBLE TO THOSE SCHOOLS AND AGENCIES IN THE STATE WHICH HAVE LITTLE OR NO ACCESS TO A C.I.D.S.

(6.) THE C.I.D.S. SHOULD BE AVAILABLE IN A VARIETY OF EQUIPMENT FORMATS: IBM PC HARD DISK; APPLE PC HARD DISK; MAINFRAME, NETWORK AND MICROFICHE.

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ATTACHMENTS

A. B. C

CAREER INFORMATION DELIVERY SYSTEM USER STUDY
Questionnaire I.D. #_____

NAME_____
TITLE_____
SCHOOL_____
AGENCY OR ORGANIZATION_____
COUNTY_____
ADDRESS_____
TELEPHONE NUMBER:_____

A Career Information Delivery System (CIDS) is being proposed for Maryland to more effectively provide career and occupational information to users. The State Occupational Information Coordinating Committee is providing you with the opportunity to give input on Maryland's CIDS delivery system through completion of this questionnaire. This questionnaire only requires thirty minutes to complete. It is being sent to guidance counselors, librarians, and job service personnel to complete. For more information about this research, please contact Jasmin Duckett, SOICC Coordinator, (301) 333-5478.

DEFINITION: INFORM = INFORMATION NETWORK FOR OCCUPATIONAL RESOURCES IN MARYLAND

0. What is your opinion of the necessity of a computerized career information delivery system?

01. Under what circumstance(s) would you use a computer for career information delivery? (Check all that apply)
_____**If funding were available**
_____**If it provided national information**
_____**If it provided Maryland information**
_____**If it provided local information**
_____**If I knew more about how a computer could be used for career information**
_____**Other**_____
_____**Would not use**

02. What hardware does your School System provide counselors at the present time? (Check all that apply)
_____**IBM Hard Disk** _____**Apple Stand Alone**
_____**IBM Network** _____**Apple Network**
_____**HP 3000** **Other:**_____

03. What hardware does your School System expect to provide counselors over the next five years? (Check all that apply)
_____**IBM Hard Disk** _____**Apple Stand Alone**
_____**IBM Network** _____**Apple Network**
_____**HP 3000** **Other:**_____

04. If you were given an opportunity to have the following types of information on a computer, how would you rate its importance?

KEY TO RATING SCALE FOR DATA
3 = VI VERY IMPORTANT
2 = SI SOMEWHAT IMPORTANT
1 = NI NOT IMPORTANT

	RATING SCALE FOR DATA VI	SI	NI
Circle:	3 or	2 or	1
_____personal goals and values	3	2	1
_____aptitude test	3	2	1
_____interest inventories	3	2	1
_____job outlook information	3	2	1
_____apprenticeship	3	2	1
_____trade and technical schools	3	2	1
_____descriptions of occupations	3	2	1
_____colleges and their majors	3	2	1
_____military career information	3	2	1
_____volunteer positions	3	2	1
_____internship positions	3	2	1
_____financial aid information	3	2	1
_____vocational education programs	3	2	1
_____job openings	3	2	1

_____Other Specify:_____

05. Identify which activities would be most beneficial to you when using the MD career delivery system.

_____providing current career or vocational information
_____providing future career or vocational information
_____providing information on financial aid
_____providing information on colleges and majors
_____providing information on vocational education
_____providing apprenticeship and training program info.
_____providing military information
_____providing job openings
_____providing GED programs
_____providing volunteer positions
_____providing internship positions
_____identifying employers

06. If you are using a manual system for providing career and occupational information, please check here and stop. You do not have to complete the rest of the questionnaire. Thank you for your assistance. _____MANUAL SYSTEM

SECTION I. DESCRIPTION OF CURRENT SYSTEM

1. What type of process are you using to provide career information?
(Check all that apply)

SIGI_____ GIS_____
DISCOVER__ COIN_____
INFORM____ OTHER: PLEASE DESCRIBE
_____
_____

2. What type of hardware are you using? (Check all that apply)

IBM Systems:
IBM STAND ALONE_____
IBM HARD DISK_____
IBM NETWORK_____

APPLE Systems:
APPLE STAND ALONE_____
APPLE NETWORK_____

HEWLETT PACKARD Systems:
HP MAINFRAME_____
HP STAND ALONE_____

OTHER HARDWARE
MICROFICHE_____
RADIO SHACK_____
COMMODORE_____
OTHER_____

SECTION II. SYSTEM OPTIONS

1. Standard database files in this system are:
(Check all that apply)

_____Occupations
_____Two-Year Colleges
_____Four-Year Colleges
_____Military Training
_____Independent Post-Secondary Schools
_____Financial Aid
_____Apprenticeship
_____High School Equivalency Programs
_____School Subjects
_____Vocational Education Programs
_____Job Openings

2. User support is: (Check all that apply)

_____User Manual
_____Newsletter
_____Hot Line Telephone Number:_____

3. Have you had any problems with the system? Yes____ No___
SYSTEM NAME:_____
(Check all that apply and explain your response)
____Staff orientation
____Staffing
____Training
____Equipment
____Quality of Output Information
____Scheduling
____Files do not contain relative Maryland data
____Files are not updated
____Other Problems
EXPLANATION_____
_____
_____
_____
_____

SECTION III. USER NEEDS

1. Career information provided in the current CIDS has been useful for students with the following special characteristics: (Check all that apply)
____Handicapped
____Gifted
____Potential Dropouts
____Limited English Proficiency
____None of These
____Others
In what ways?_____
_____
_____

2. System is appropriate for the following users:
(Check all that apply)
_____Dropouts
_____Guidance Counselors
_____Planners
_____Teachers
_____Administrators
_____Job Seekers
_____College-Bound Students
_____Displaced Workers
_____Career Changers
_____Veterans
_____Elementary School students
_____7th, 8th, and 9th Graders
_____10th, 11th, and 12th Graders
_____Adults
_____Other Specify:_____

3. What method of cross referencing do you need?
(Check all that apply)
_____Classification of Instructional Programs
_____Dictionary of Occupational Titles
_____Standard Occupational Classification
_____Standard Industry Codes
_____Other Specify:_____

4. Users can access system: (Check only one)
_____Alone and without training or supplementary materials
_____Alone after training
_____With counselor assistance
_____With user manual
_____With special training

5. Benefits of the system's options are that:
(Check all that apply)
_____Students can choose and erase options at any time in the search and retrieval process
_____Students can call up their personal profiles at any time
_____Students can freely move in and out of files
_____All variables to be defined are on one screen at one time
_____Students can directly retrieve specific information on particular schools or jobs at any time
_____Computer matches the student profile with the appropriate jobs and/or schools
_____Personal profiles can be changed at any time
_____Search parameters can be changed at any time
_____Other Specify:_____

6. To eliminate problems with the current career delivery system, what options would an alternative system have?
(Check all that apply)
_____Ease of use
_____Speed in accessing data
_____Rapid searching of information
_____Rapid sorting of information
_____Flexibility of matching profile data
_____None; I have no problems with current system
_____Other_____

7. What persons in your organization need training in the use of Maryland's career information delivery system?
(Check all that apply)
_____Guidance Counselors
_____Teachers
_____Administrators/Planners
_____Students
_____Community Residents

8. Please check the types of computerized career information systems with which you are familiar. (Check all that apply)

_____GIS
_____COIN
_____CHOICES
_____INFORM
_____DISCOVER
_____OTHER _____

SECTION IV. RECOMMENDATION FOR A NEW OR IMPROVED SYSTEM

1. Would you be interested in continuing with your present form of CIDS? _____YES _____NO

If Yes, UNDER WHAT CIRCUMSTANCES?

If No, UNDER WHAT CIRCUMSTANCES?

2. MY PERSONAL PREFERENCE IS: (CHECK ONLY ONE)

_____INFORM IN CURRENT FORMAT
_____INFORM IN MICRO-COMPUTER FORMAT
_____INFORM IN MAINFRAME FORMAT
_____GIS IN MICRO-COMPUTER VERSION
_____GIS IN MAINFRAME VERSION
_____DISCOVER IN MICRO-COMPUTER VERSION
_____DISCOVER IN MAINFRAME VERSION
_____COIN IN MICRO-COMPUTER VERSION
_____COIN IN MAINFRAME VERSION
_____SIGI IN MICRO-COMPUTER VERSION
_____SIGI IN MAINFRAME VERSION
_____OTHER:_____

3. What combination of hardware and software do you prefer?

_____Hardware
_____Software

USER
COMMENTS: (Optional)_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

At some point in time we will make random school visits. Would your school agree to be visited?

_____YES _____NO

If yes, who should we contact?
Name_____
Title_____
Address:_____
_____
Telephone:_____

STOP! YOU ARE FINISHED!

If you have questions about this survey, please contact Jasmin Duckett, SOICC Coordinator, at (301) 333-5478.

Thank you for your assistance. To obtain a copy of the results of this study, please send a letter of request to the address below.

PLEASE RETURN THE SURVEY IN THE SELF-ADDRESSED ENVELOPE WITHIN TWO WEEKS FROM THE DATE OF RECEIPT TO:

Jasmin Duckett
State Occupational Information Coordinating
Committee Coordinator
D.E.E.D.
1100 North Eutaw Street
Baltimore, Maryland 21201

Maryland
Department of Economic & Employment Development

William Donald Schaefer
Governor
J. Randall Evans
Secretary

1100 North Eutaw Street
Baltimore, Maryland
21201

Dear Colleague,

The enclosed survey form is part of a feasibility study for developing a statewide computerized career information delivery system (C.I.D.S.). A CIDS system is being proposed for Maryland to more effectively provide career and occupational information to users. Computerized systems exist in over 44 other states and vary in the types of information they provide, in costs and funding sources, in the types of computers used, and in the means of distributing information. Each system is tailored to meet the needs of a wide variety of user groups and provide services in effective utilization of computerized career information.

The purpose of this particular survey is to help us understand your information needs and preferences. Your responses will also help us determine an appropriate delivery system. We are providing you with the opportunity to give input on Maryland's C.I.D.S. delivery system.

In responding to questions which ask for your comments, please be as specific and as candid as possible. Should you have any questions about the survey, contact Jasmin Duckett, SOICC Coordinator at (301) 333-5478.

Please return your questionnaire in the enclosed self-addressed envelope.

Thank you for taking the time to assist the State Occupational Information Coordinating Committee with the charge to effectively provide career and occupational information in Maryland.

Sincerely,

Jasmin Duckett

Jasmin Duckett
State Occupational Information
Coordinating Committee Coordinator

Maryland
Department of Economic & Employment Development

William Donald Schaefer
Governor
J. Randall Evans
Secretary

1100 North Eutaw Street
Baltimore, Maryland
21201

November 28, 1988

Dear Colleague,

THIS IS A SECOND REQUEST FOR YOUR PARTICIPATION IN A FEASIBILITY STUDY FOR DEVELOPING A STATEWIDE COMPUTERIZED CAREER INFORMATION DELIVERY SYSTEM (C.I.D.S.)

If you have already responded, thank you for your assistance. On the contrary, I am providing you with a second opportunity to give input on Maryland's C.I.D.S.

The purpose of the enclosed survey is to help members of the State Occupational Information Coordinating Committee to understand your information needs and preferences. Your response will help us determine an appropriate delivery system for the State of Maryland.

In responding to questions which ask for your comments, please be as specific and as candid as possible. Should you have any questions about the survey, contact Jasmin Duckett, SOICC Coordinator at (301) 333-5478.

PLEASE RETURN YOUR QUESTIONNAIRE IN THE ENCLOSED SELF-ADDRESSED ENVELOPE BY MONDAY, DECEMBER 19, 1988.

Thank you for taking the time to assist the State Occupational Information Coordinating Committee (SOICC) with the charge to effectively provide career and occupational information to Maryland users.

Sincerely,

Jasmin Duckett

Jasmin Duckett
State Occuaptional Information
Coordinating Committee Coordinator

Enclosures: Survey Form
Self-Address Envelope

ATTACHMENT B

Maryland
Department of Economic & Employment Development

[illegible] Schaefer
Governor
[illegible] Evans
Secretary

1100 North Eutaw Street
Baltimore, Maryland
21201

December 9, 1988

Dear Principal:

The State of Maryland is conducting a study to evaluate the current use of the INFORM microfiche career information delivery system in order to plan for future use.

Your school has been selected to participate in a survey to determine the level of satisfaction. Counselors have already been asked to supply data, but I would really like to hear from principals.

Participation in this study merely involves ten minutes of your time to complete the enclosed Principal's Survey of User Satisfaction and to return it to me before DECEMBER 21, 1988.

If you have questions, please call me at (301) 333-5478.

I look forward to receiving your information so that the final report and recommendations will accurately reflect your school's experience with a computerized career information system.

Sincerely,

Jasmin Duckett
SOICC Coordinator

JD:bh

Enclosure

CIDS Evaluation No. _____

Principal's Survey of User Satisfaction

Principal's Name: _____

Full Name of School: _____

City, Town, or County in Which School is Located: _____

Name of Computerized Career Information Delivery System(s) Used in Your School: (Check One)

_____ INFORM Microfiche _____ GIS _____ SIGI

_____ DIME _____ DISCOVER _____ COIN

_____ Other: _____

We would like to acknowledge your participation in the final report of this study. May we do so? _____ Yes _____ No

DIRECTIONS: Please circle your response to each item on this survey. If you wish to make additional comments, please feel free to do so.

I. CIDS Activities

Career Information Delivery Systems (CIDS) are used in different settings and with different groups within a school. Circle YES or No to indicate whether or not your school has the CIDS to support each activity listed below.

A.	Individual Career Counseling	YES	NO
B.	Career Education/Awareness Groups or Classes	YES	NO
C.	College Guidance	YES	NO
D.	Financial Aid	YES	NO
E.	Special Education Programs	YES	NO
F.	Occupational Education Programs	YES	NO
G.	Basic Skills or Remedial Reading	YES	NO
H.	Subject Class Instruction such as English, Economics, etc.	YES	NO
I.	Job Placement	YES	NO

Name of School: _____

J.	Military Entrance	YES	NO
K.	Employability Skills Groups or Classes	YES	NO
L.	Counseling Physically Handicapped Students	YES	NO

II. Level of Satisfaction

DIRECTIONS: For each of the following items, please indicate your level of agreement or disagreement with the statement by circling the appropriate number. 3 = AGREE
2 = NO OPINION
1 = DISAGREE

		CIRCLE:		
A.	In general, my school is satisfied with INFORM microfiche.	3	2	1
B.	Generally, my school is satisfied with its present computerized career information delivery system.	3	2	1
C.	Students have expressed the usefulness of INFORM microfiche in their career or educational planning.	3	2	1
D.	Students have expressed the usefulness of the computerized system in their career or educational planning.	3	2	1
E.	Counselors prefer utilizing INFORM microfiche in counseling students.	3	2	1
F.	Counselors prefer utilizing the computerized system in counseling students.	3	2	1
G.	The information presented in INFORM microfiche is appropriate for the students in my school.	3	2	1

Name of School: _____

H.	The information presented in the computerized system is appropriate for the students in my school.	3	2	1
I.	The INFORM microfiche system has been accepted easily by counselors.	3	2	1
J.	The computerized system has been accepted easily by counelors.	3	2	1
K.	The INFORM microfiche system is well worth the cost.	3	2	1
L.	The computerized system is well worth the cost.	3	2	1
M.	There have been no significant problems with scheduling students to use the INFORM microfiche system.	3	2	1
N.	There have been no significant problems with scheduling students to use the computerized system.	3	2	1

PLEASE RETURN COMPLETED SURVEY IN THE ENCLOSED SELF-ADDRESSED ENVELOPE BEFORE DECEMBER 21, 1988.

JASMIN DUCKETT
SOICC COORDINATOR
1100 NORTH EUTAW STREET, ROOM 205
BALTIMORE, MARYLAND 21201

IF YOU HAVE QUESTIONS, PLEASE CALL ME AT (301) 333-5478.

Thank you for your assistance.

ATTACHMENT C

CIDS USER STUDY

NAME_____

TITLE_____

ORGANIZATION_____

ADDRESS_____

DATE_____

1. What type of process are you using to provide career information?

_____

SIGI_____ GIS_____
DISCOVER__ COIN_____
INFORM____ OTHER_____

2. What type of hardware are you using?

APPLE STAND ALONE_____
IBM STAND ALONE_____
APPLE NETWORK_____
IBM NETWORK_____
HP MAINFRAME_____
HP STAND ALONE_____
MICROFICHE_____
RADIO SHACK_____
COMMODORE_____
IBM HARD DISK_____

3. Have you had any problems with the system? Yes____ No___

____Staff orientation
____Staffing
____Training
____Equipment is Too Cumbersome
____Quality of Information
____Scheduling

4. Would you be interested in continuing with your present form of system delivery?

Yes_____Under what circumstances?

No_____Why not?

5. Do you think more users would utilize the system after a computer system is installed?

___Yes
WHY?

____No
WHY?

6. Has your career information been useful for students with special characteristics, such as the handicapped, gifted, ESL, etc.? Why or Why Not?

7. What combination of hardware and software do you prefer?
_____Hardware
_____Software

8. What would you say are the most important benefits of using career information?_____
_____
_____
_____
_____

9. What method of cross referencing do you need?
____Classification of Instructional Programs
____Dictionary of Occupational Titles
____Standard Industrial Occupations
____Standard Industry Codes

10. Under what circumstance(s) would you consider using a computer for career information delivery?
_____If funding were available
_____If it provided national information
_____If it provided Maryland information
_____If it provided local information
_____If I knew more about how a computer could be used for career information

11. To eliminate problems with the current career delivery system, a new or improved system should entail the following elements.
_____Ease of use
_____Speed in accessing data
_____Rapid searching of information
_____Rapid sorting of information
_____Flexibility of matching profile data

12. The following persons need training on Maryland's career information delivery system

_____Guidance Counselors
_____Teachers
_____Administrators/Planners
_____Students
_____Community Residents

13. Please check the types of computerized career information systems with which you are familiar.

_____GIS
_____COIN
_____CHOICES
_____INFORM
_____DISCOVER
_____OTHER NAME:_____
_____

14. Computerized information can be easily used and easily updated. If you were given an opportunity to have the following types of information on a computer, how would you rank their importance? 1 = very important; 2 = somewhat important 3 = not important

_____tools which assess personal goals and values
_____aptitude test
_____interest inventories
_____job outlook information
_____apprenticeship or other training programs
_____descriptions of occupations
_____colleges and their majors
_____military career information
_____volunteer or internship positions
_____financial aid information
_____vocational education training programs
_____job openings
_____Other Specify:_____

15. What are the advantages of your current system?

16. What are the disadvantages of your current system?

17. Identify which activities would be most beneficial to you when using the MD career delivery system.

_____providing current career or vocational information
_____providing future career or vocational information
_____providing information on financial aid
_____providing information on colleges and majors
_____providing information on vocational education
_____providing apprenticeship and training program info.
_____providing military information
_____providing job openings
_____providing GED programs
_____providing volunteer positions
_____providing internship positions
_____identifying employers

ATTACHMENT

D

ATTACHMENT D

VENDOR INFORMATION SURVEY

FOR INFORM SYSTEM

I. SYSTEM COST

A. BASIC COST OF THE SYSTEM PER SITE? $ 399.00 - Microfiche
$1199.00 - Hard Drive/Main-Frame

B. STANDARD FILES:
- Occupational
- School Subject
- College (Maryland)
- College Majors
- Apprenticeship
- Private Career Schools
- Financial Aid
- Military
- GED

C. OPTION FILES AND @ COST PER SITE:

Petersons College Search	@$ 250.00
Occupational Search/Apple IIE	@$ 175.00
Financial Aid Advisor	@$ 175.00
	@$
	@$
	@$
	@$

D. CAN MARYLAND STATE DATA BE ENTERED INTO THE SYSTEM? YES NO

E. IF YES TO QUESTION D, IN WHAT FILES CAN MARYLAND DATA BE ENTERED AND @ WHAT ADDITIONAL COST?

	@$
All but Military contain Maryland data	@$ N/C
	@$
	@$
	@$
	@$
	@$
	@$

F. COST TO MAINTAIN VENDOR DATA $ 103,000

G. COST TO MAINTAIN MD STATE DATA $

H. MAINFRAME SYSTEM COST PER SITE $ 1,199 Multiple site discounts availab

I. IBM NETWORK COST PER SITE $

J. APPLE NETWORK COST PER SITE $

K. IBM PC STANDALONE COST PER SITE $ 1,199

L. APPLE PC STANDALONE COST PER SITE $

II. DATA TYPES

A. HOW OFTEN IS INFORMATION UPDATED? Annually

B. NUMBER OF OCCUPATIONS DESCRIBED 440

C. NUMBER OF COLLEGES DESCRIBED 59

D. WHO MAINTAINS NATIONAL DATA? Maryland New Directions, Inc.

E. WHO MAINTAINS STATE DATA? Maryland New Directions, Inc.

F. IDENTIFY USER SUPPORT MATERIALS SUPPLIED EACH USER

INSTALLATION YES NO
HOTLINE ~~YES~~ NO
TELEPHONE NUMBER: 1-800-543-4534
TRAINING YES NO
MANUALS ~~YES~~ NO
NEWSLETTER ~~YES~~ NO
ON-SITE PROBLEM SHOOTING YES NO

G. DESCRIBE YOUR POLICIES CONCERNING COPYRIGHTS AND USE OF STATE MODIFICATIONS TO YOUR SYSTEM MND holds copyright to INFORM data, microfiche and computer searches and HP3000 program. Data Networks holds copyright to IBM program and allows MND unlimited use of it. Copies of the program may not be made without permission.

PLEASE RETURN IN THE ENCLOSED SELF-ADDRESSED ENVELOPE BEFORE DECEMBER 19, 1988.

ATTACHMENT D

VENDOR INFORMATION SURVEY

FOR GUIDANCE INFORMATION SYSTEM (GIS)

I. SYSTEM COST

A. BASIC COST OF THE SYSTEM PER SITE? $1,950 ao *

B. STANDARD FILES:
OCCUPATIONAL (NAT'L) 1,038 OCCUPATIONS
ARMED SERVICES 208 OCCUPATIONS
TWO-YR COLLEGE 1,780 COLLEGES
FOUR-YR COLLEGE 1,738 COLLEGES
GRADUATE / PROFESSIONAL SCHS 1,580 SCHOOLS
FINANCIAL AIDS INFO 630 SOURCES

C. OPTION FILES AND @ COST PER SITE:

VO-TECH FILE BASE	@$	9,500
OCCUPATIONAL FILE BASE	@$	9,500
EMPLOYER FILE BASE	@$	9,000
FINANCIAL AID FILE BASE	@$	5,000
HUMAN SERVICES FILE BASE	@$	5,000
APPRENTICESHIP FILE BASE	@$	5,000
	@$	

D. CAN MARYLAND STATE DATA BE ENTERED INTO THE SYSTEM? (YES) NO

E. IF YES TO QUESTION D, IN WHAT FILES CAN MARYLAND DATA BE ENTERED AND @ WHAT ADDITIONAL COST?

MARYLAND DATA MAY BE	@$	NO
ENTERED IN ALL OF THE	@$	ADDITIONAL
SIX OPTION FILES	@$	COST
	@$	
	@$	
	@$	
	@$	
	@$	

*** SAME SYSTEM WITHIN EXISTING SITE @ 198
EX: ORIGINAL = APPLE (1,950)
2nd SYSTEM = APPLE (198)

* MULTIPLE SITE DISCOUNTS APPLY.

1-3	SITES	1,950
4-5	SITES	1,703
6-10	SITES	1,547
11-16	SITES	1,404
17-50	SITES	1,313
51-100	SITES	1,131
100+	SITES	1,118

** ADDITIONAL SYSTEM WITHIN AN EXISTING SITE - IF THE SYSTEM IS DIFFERENT FROM ORIGINAL = @ 198
EX: ORIGINAL SITE = APPLE (1,950)
2nd SYSTEM; SAME SITE = IBM (198)

F. COST TO MAINTAIN VENDOR DATA $ 1,950 ANNUALLY

G. COST TO MAINTAIN MD STATE DATA $ APPROX. 2,000 ANNUALLY

H. MAINFRAME SYSTEM COST PER SITE $ 3,336 + PER SITE COST

I. IBM NETWORK COST PER SITE $ 1,950

J. APPLE NETWORK COST PER SITE $ 1,950

K. IBM PC STANDALONE COST PER SITE $ 1,950

L. APPLE PC STANDALONE COST PER SITE $ 1,950

II. DATA TYPES

A. HOW OFTEN IS INFORMATION UPDATED? TWICE A YEAR

B. NUMBER OF OCCUPATIONS DESCRIBED 1,038

C. NUMBER OF COLLEGES DESCRIBED 2-yr = 1,788 4-yr = 1,730

D. WHO MAINTAINS NATIONAL DATA? FULL EDITORIAL STAFF

E. WHO MAINTAINS STATE DATA? EDITORIAL STAFF MEMBER

F. IDENTIFY USER SUPPORT MATERIALS SUPPLIED EACH USER

INSTALLATION	(YES)	NO
HOTLINE	(YES)	NO
TELEPHONE NUMBER:	1-800/258-3545	
TRAINING	(YES)	NO
MANUALS	(YES)	NO
NEWSLETTER	(YES)	NO
ON-SITE PROBLEM SHOOTING	(YES)	NO

G. DESCRIBE YOUR POLICIES CONCERNING COPYRIGHTS AND USE OF STATE MODIFICATIONS TO YOUR SYSTEM We reserve complete rights to our GIS system; modifications are prohibited without first making contact with Houghton Mifflin Co.

PLEASE RETURN IN THE ENCLOSED SELF-ADDRESSED ENVELOPE BEFORE DECEMBER 19, 1988.

VENDOR INFORMATION SURVEY

FOR SIGI Plus from Educational Testing Service SYSTEM

I. SYSTEM COST

A. BASIC COST OF THE SYSTEM PER SITE? $1375 per micro-unit per year
Multi-unit, multi-year costs.
Please see attachment A, iter #3

B. STANDARD FILES:
Please see Attachment B for file descriptions

- Introduction
- Self-Assessment
- Search
- Information
- Skills
- Preparing
- Coping
- Deciding
- Next Steps

C. OPTION FILES AND @ COST PER SITE:

1. Customization available for following	@$	No additional charge
a. Information	@$	No additional charge
b. Coping	@$	No additional charge
c. Next Steps	@$	No additional charge
2. Client Record Retrieval System	@$	No additional charge
3. Counselor's Record Retrieval System	@$	No additional charge
	@$	

D. CAN MARYLAND STATE DATA BE ENTERED INTO THE SYSTEM? *YES NO

E. IF YES TO QUESTION D, IN WHAT FILES CAN MARYLAND DATA BE ENTERED AND @ WHAT ADDITIONAL COST?

Information	@$	No additional charge
Coping	@$	No additional charge
Next Steps	@$	No additional charge
"Bulletin Board" screen at end of each file for a total of nine screens	@$	No additional charge
Sign-off screen	@$	No additional charge
	@$	
	@$	

*Note to D & E above: SIGI Plus system is user-friendly and menu-driven, allowing site users to add Maryland data as desired. The SIGI Plus representative can train site users to input pertinent information at no additional cost.

F. COST TO MAINTAIN VENDOR DATA $No cost to licensee

G. COST TO MAINTAIN MD STATE DATA $No maintaining offered

H. MAINFRAME SYSTEM COST PER SITE $Mainframe/Minicomputer Please see attachment A item

I. IBM NETWORK COST PER SITE $Local Area Network Please see attachment A item

J. APPLE NETWORK COST PER SITE $No Apple system offered

K. IBM PC STANDALONE COST PER SITE $Microcomputer Version Please see attachment A item

L. APPLE PC STANDALONE COST PER SITE $No Apple system offered

II. DATA TYPES

A. HOW OFTEN IS INFORMATION UPDATED? Annually

B. NUMBER OF OCCUPATIONS DESCRIBED 220 Occupational descriptions and more than 520 different job titles, 1,600 job titles referenced in program.

C. NUMBER OF COLLEGES DESCRIBED No college descriptions offered

D. WHO MAINTAINS NATIONAL DATA? Vendor

E. WHO MAINTAINS STATE DATA? Individual licensee or site user

F. IDENTIFY USER SUPPORT MATERIALS SUPPLIED EACH USER

INSTALLATION * YES NO Sample support materials enclosed
HOTLINE * YES NO
TELEPHONE NUMBER: SIGI Plus rep: 800-257-7444; Hotline: 800-542-0491
TRAINING * YES NO
MANUALS * YES NO
NEWSLETTER * YES NO
ON-SITE PROBLEM SHOOTING *YES NO

G. DESCRIBE YOUR POLICIES CONCERNING COPYRIGHTS AND USE OF STATE MODIFICATIONS TO YOUR SYSTEM Please see attachment C. Use of the system, other than described in attachment C, can be negotiated with ETS and licensee. Requests for modifications of the system must be approved prior to implementation of modifications.

PLEASE RETURN IN THE ENCLOSED SELF-ADDRESSED ENVELOPE BEFORE DECEMBER 19, 1988.

ATTACHMENT D

VENDOR INFORMATION SURVEY

FOR DISCOVER SYSTEM

I. SYSTEM COST

A. BASIC COST OF THE SYSTEM PER SITE? $1750/year

B. STANDARD FILES: occupations
vocational/technical schools
two-year colleges
four-year colleges
graduate schools
external degree programs
military training programs
college majors
high school programs of study

C. OPTION FILES AND @ COST PER SITE:

Storage files keep summaries of the inventories completed by users plus a list of the 10 most suitable occupations plus a list of 10 colleges that meet the needs of each. From these files, 11 reports can be generated for administrator use. @$ No additional cost. Counseling activities, storage files, and the standard files above are all integrated in one system.

D. CAN MARYLAND STATE DATA BE ENTERED INTO THE SYSTEM? (YES) NO

E. IF YES TO QUESTION D, IN WHAT FILES CAN MARYLAND DATA BE ENTERED AND @ WHAT ADDITIONAL COST?

In all the standard files indicated above. @$ No additional cost.

RECEIVED

DEC 2 1982

F. COST TO MAINTAIN VENDOR DATA $ 0

G. COST TO MAINTAIN MD STATE DATA $ 0

H. MAINFRAME SYSTEM COST PER SITE $ TO BE DETERMINED ACCORDING TO NUMBER OF SITES

I. IBM NETWORK COST PER SITE $ TO BE DETERMINED ACC. TO NUMBER OF SITES

J. APPLE NETWORK COST PER SITE $ TO BE DETERMINED ACCORDING TO NUMBER OF SITES

K. IBM PC STANDALONE COST PER SITE $ TO BE DETERMINED ACCORDING TO NUMBER OF SITES

L. APPLE PC STANDALONE COST PER SITE $ APPLE STANDALONES MUST BE EQUIPPED WITH A CORVUS HARD DISK TO SUPPORT DISCOVER. COST IS PROHIBITIVE.

II. DATA TYPES

A. HOW OFTEN IS INFORMATION UPDATED? EVERY YEAR

B. NUMBER OF OCCUPATIONS DESCRIBED 459

C. NUMBER OF COLLEGES DESCRIBED 1731 4-YR COLLEGES; 1458 2-YR COLLEGES

D. WHO MAINTAINS NATIONAL DATA? DISCOVER CENTER, HUNT VALLEY, M.

E. WHO MAINTAINS STATE DATA? SOICC

F. IDENTIFY USER SUPPORT MATERIALS SUPPLIED EACH USER

INSTALLATION	(YES)	NO
HOTLINE	(YES)	NO
TELEPHONE NUMBER:	584 - 8000 (HUNT VALLEY)	
TRAINING	(YES)	NO
MANUALS	(YES)	NO
NEWSLETTER	(YES)	NO
ON-SITE PROBLEM SHOOTING	YES	NO

G. DESCRIBE YOUR POLICIES CONCERNING COPYRIGHTS AND USE OF STATE MODIFICATIONS TO YOUR SYSTEM

IN NON-NETWORK SITUATIONS DISCOVER IS LICENSED FOR USE ON A SINGLE MICROCOMPUTER. IT MAY NOT BE INSTALLED ON MORE THAN ONE COMPUTER. IF AN INSTITUTION WISHES TO INSTALL DISCOVER ON MULTIPLE COMPUTERS, IT MUST ORDER A SET OF SOFTWARE FOR EACH COMPUTER. THERE ARE SUBSTANTIAL DISCOUNTS FOR MULTIPLE COPY ORDERS HOWEVER.

PLEASE RETURN IN THE ENCLOSED SELF-ADDRESSED ENVELOPE BEFORE DECEMBER 19, 1988.

FOR A VERY LARGE ORDER, A VERY GOOD PRICE CAN BE NEGOTIATED.

INFORM
MRS. ROSE MARIE COUGHLIN
MARYLAND NEW DIRECTIONS FOR WOMEN
2517 NORTH CHARLES STREET
BALTIMORE MD 21218
235-8800

DISCOVER
OSCAR LYNCH
ASSISTANT DIRECTOR
CAREER PLANNING SERVICES
EASTERN REGION
PINE WEST PLAZA IV
WASHINGTON AVENUE EXTENSION
ALBANY, NEW YORK 12205-5510
(518) 869-7378

GIS
SANDRA M. DAVIS
REGIONAL REPRESENTATIVE
HOUGHTON MIFFLIN
PO BOX 330
SEVERN MD 21144
(301) 551-3160

SIGI
MERRL K. MARTIN
SENIOR FIELD MARKETING REPRESENTATIVE
EDUCATIONAL TESTING SERVICE
MIDDLE ATLANTIC REGION
ROOM D-017
ROSEDALE ROAD
PRINCETON, NJ 08541
(609) 734-1117
(800) 257-5161

COIN
DR ROD W. DURGIN, PH.D.
PRESIDENT
COIN EDUCATIONAL PRODUCTS
3361 EXECUTIVE PARKWAY, SUITE 302
TOLEDO, OHIO 43606
(419) 536-5353

ATTACHMENT

E

CAREER INFORMATION DELIVERY SYSTEM
EVALUATION FORM

PART I. SPECIFIC PROGRAM DATA

OBJECTIVE: This form will be utilized by the Technical Steering Committee to objectively evaluate various CIDS systems to identify each system's strengths and weaknesses. The end product is to recommend a Maryland CIDS system which will provide basic information to all Maryland users.

COMPLETED BY
TSG MEMBER JASMIN DUCKETT

DATE September 29, 1988

NAME OF SYSTEM INFORM - Information Network for Occupational Resources in Maryland

1. This system is completely available in the following formats
   - [X] High Disk/Hard Disk
   - [X] Mainframe
   - [X] Microfiche
   - [ ] Needlepoint
   - [X] 5 1/4 Floppy Disk
   - [X] 3 1/2 Floppy Disk
   - [ ] 8 inch Floppy

2. User support is
   - [X] User Manual
   - [X] Newsletter
   - [X] Hot Line Telephone Number: 1-800-543-4534

3. This system is updated
   - [ ] Every month
   - [ ] Every three months
   - [ ] Every six months
   - [X] Once a year
   - [ ] Over a year's time

4. User training is provided
   - [ ] On user site
   - [ ] On vendor site
   - [X] On both vendor and user site

5. Frequency of user training is
   - [ ] upon acquisition only
   - [ ] upon user request only
   - [X] upon both acquisition and subsequent user request
   - [X] automatically upon updates

6. Standard database files in this system are:
   - [X] Occupations
   - [X] Two-Year Colleges
   - [X] Four-Year Colleges
   - [X] Military Training
   - [X] Independent Post-SEcondary Schools
   - [X] Financial Aid
   - [X] Apprenticeship
   - [X] High School Equivalency Program
   - [X] School Subjects
   - [X] Vocational Education
   - [ ] Job Openings
   - [X] College Majors

7. Option files in this system are: (INFORM Microfiche and Microcomputer files)
   - [ ] Maryland Colleges
   - [ ] Maryland College Majors
   - [ ] Maryland Occupations
   - [ ] Independent Post-Secondary Schools
   - [ ] Maryland Independent Post-Secondary Schools
   - [ ] Maryland Financial Aid
   - [ ] Apprenticeship Programs in Maryland
   - [ ] Apprenticeship Programs
   - [ ] Military Training
   - [ ] Military Training in Maryland
   - [ ] High School Equivalency Programs
   - [ ] Maryland High School Equivalency Programs
   - [ ] School Subjects
   - [ ] Maryland School Subjects
   - [ ] Vocational Education
   - [ ] Maryland Vocational Education
   - [X] Job Openings - National
   - [X] Job Openings - Local

8. Total database files contain
   - [ ] Less than 5,000 pages of information
   - [ ] 5,001 to 9,000 pages
   - [X] 9,001 to 14,999 pages
   - [ ] 15,000+ pages

9. Files are based on
   - [X] Dictionary of Occupation Titles (DOT)
   - [X] National Data from Department of Labor
   - [X] Petersen's Guide
   - [X] Michigan Occupational System database
   - [X] Local Data
   - [ ] Other Source Specify:_____

10. Step-by-step instructions are
    - [X] Embedded on every screen
    - [ ] Embedded at the beginning only
    - [ ] Embedded at the end of file only
    - [ ] "HELP SCREENS" are always available to User

11. Flexibility of the database allows the user to crosswalk by
    - [X] Dictionary of Occupational Titles (DOT) Codes
    - [ ] Classification of Instructional Programs (CIP) Codes
    - [ ] Occupational Employment Statistics (OES) Codes
    - [ ] Military Codes
    - [ ] Standard Occupational Classification (SOC) Codes

12. Students answer questions and make selections to build personal profiles with
    - [X] Seven major categories to build occupational profiles
    - [ ] Eight major categories to build school profiles
    - [ ] Six questions to build personal profile
    - [ ] Seven questions to build personal profile

13. Computer program can run on
    - [X] Hewlett Packard
    - [X] Apple (Search)
    - [ ] IBM Mainframe
    - [X] IBM Compatible PC
    - [X] IBM PC
    - [X] IBM Hard Disk-PC
    - [X] Any Networked Terminal
    - [ ] TRS 80

14. Computer program requires
    - [ ] 2 Megabytes or less
    - [ ] 2+ to 5 Megabytes
    - [ ] 5+ to 10 Megabytes
    - [X] 10+ to 15 Megabytes (For IBM Hard Disk PC)
    - [ ] 15+ to 20 Megabytes
    - [X] Over 20 Megabytes (For HP Mainframe)

15. In the database are at least
    - [X] 1,150 Major Occupations
    - [ ] 3,000 Post-Secondary Schools
    - [ ] 250 College Majors
    - [ ] 250 Vocational Programs
    - [X] 400 Clustered Occupations

16. Information vendor supplied to Technical Steering Group includes

- X Current List of Users
- X Price List
- X Demonstration Disks
- X Personal Demonstrations
- X Professional Assistance and Consultation
- X Prompt Services
- X User Manuals
- X Newsletter
- ___ System on Loan for Hands-On Experience
- X Sample Printed Occupational Description
- X Sample Printed College Description
- ___ Other Specify: _____

17. Vendor has a site license

- ___ with Maryland Department of Education
- ___ with State Occupational Information Coordinating Committee
- ___ but does not require a site license for Maryland
- X Other Specify: Vendor retains the rights to IBM micro-computer program

18. System provides information on

- X New Occupations
- X Emerging Occupations
- X New Job Titles
- X Current DOT Job Descriptions

PART II. RELATIVE PROGRAM DATA

1. System is appropriate for the following users:
   - [X] Dropouts
   - [X] Guidance Counselors
   - [X] Planners
   - [X] Teachers
   - [X] Administrators
   - [X] Job Seekers
   - [X] College-Bound Students
   - [X] Displaced Workers
   - [X] Career Changers
   - [X] Veterans
   - [ ] Elementary School Students
   - [X] 7th, 8th, and 9th Graders
   - [X] 10th, 11th, and 12th Graders
   - [X] Adults
   - [X] Other Specify: Special Needs Individuals

2. Users can access system
   - [ ] With counselor assistance
   - [X] Without counselor assistance
   - [ ] With supplemental paper materials
   - [X] Without supplemental paper materials
   - [ ] With special training
   - [X] Without special training
   - [ ] With prior equipment experience
   - [X] Without prior equipment experience

3. User flexibility is friendly because
   - [X] Students can choose and erase options at any time in the search and retrieval process
   - [X] Students can call up their personal profiles at any time
   - [X] Students can freely move in and out of files
   - [X] All variables to be defined are on one screen at one time
   - [X] Students can directly retrieve specific information on particular schools or jobs at any time
   - [X] Computer matches the student profile with the appropriate jobs and/or schools
   - [X] Personal profiles can be changed at any time
   - [X] Search parameters can be changed at any time

4. System is not flexible or "user friendly" because
   _____An index must be used to access information on a particular school or job
   _____A paper profile assessment must be made
   _____Personal profiles cannot be retrieved at any time
   _____Personal profiles cannot be changed at any time
   _____Search parameters cannot be changed at any time
   _____Students have to return to beginning of program to change profile parameters
   _____Students do not have the option to always view information on screen or to print it
   _____Students must go through the search procedure to access a specific school or occupation
   _____Students can conduct only one search, either occupational or educational
   __X__Students cannot match interest with both careers and schools
   _____Data cannot be accessed directly at any point in time

5. Reading level of information in system files is:
   _____Below 6th Grade
   __X__6th Grade
   __X__7th Grade
   __X__8th Grade
   __X__9th Grade
   _____10th Grade
   _____11th Grade
   _____12th Grade
   _____College

6. Files are available in the following foreign language (Check all that apply)
   _____French
   _____Spanish
   _____Latin
   _____Other Specify:_____
   __X__NONE

EVALUATOR COMMENTS: Maryland New Directions is currently contracted to provide the Career Information Delivery System (CIDS) for the State of Maryland. Under new leadership, INFORM is being improved and promoted. However, Maryland New Directions staff members need additional State support to provide INFORM software to computer users. At the same time, State support is needed to continue to provide non-computer equipment users with INFORM microfiche.

INFORM is available in various formats for various types of computers both microcomputer and mainframe. INFORM has an advantage over other CIDS systems in its unique profile and descriptions of local Maryland data for both occupations and colleges. It is updated annually. It is most flexible in the IBM microcomputer version allowing personal assessment on computer with searches to the proper files. It is appropriate for a variety of users including dropouts, adults, college-bound students, etc. INFORM is also unique in its indepth occupational descriptions averaging fourteen (14) pages per occupational description.

CAREER INFORMATION DELIVERY SYSTEM
EVALUATION FORM

PART I. SPECIFIC PROGRAM DATA

OBJECTIVE: This form will be utilized by the Technical Steering Committee to objectively evaluate various CIDS systems to identify each system's strengths and weaknesses. The end product is to recommend a Maryland CIDS system which will provide basic information to all Maryland users.

COMPLETED BY
TSG MEMBER Jasmin Duckett

DATE November 7, 1988

NAME OF SYSTEM GIS - Guidance Information System

1. This system is completely available in the following formats
   - [X] High Disk/Hard Disk
   - [X] Mainframe
   - [ ] Microfiche
   - [ ] Needlepoint
   - [X] 5 1/4 Floppy Disk
   - [X] 3 1/2 Floppy Disk
   - [ ] 8 inch Floppy

2. User support is
   - [X] User Manual (2-3 Resource Manuals are provided GIS users)
   - [ ] Newsletter
   - [X] Hot Line Telephone Number: 1-800-258-3545

3. This system is updated
   - [ ] Every month
   - [ ] Every three months
   - [X] Every six months
   - [ ] Once a year
   - [ ] Over a year's time

4. User training is provided
   - [X] On user site
   - [ ] On vendor site
   - [ ] On both vendor and user site

5. Frequency of user training is
   - [X] upon acquisition only
   - [ ] upon user request only
   - [ ] upon both acquisition and subsequent user request
   - [X] automatically upon updates

6. Standard database files in this system are:
   - [X] Occupations
   - [X] Two-Year Colleges
   - [X] Four-Year Colleges
   - [X] Military Training
   - [ ] Independent Post-Secondary Schools
   - [X] Financial Aid
   - [ ] Apprenticeship
   - [ ] High School Equivalency Program
   - [X] School Subjects
   - [ ] Vocational Education
   - [ ] Job Openings

7. Option files in this system are:
   - [X] Maryland Colleges
   - [X] Maryland College Majors
   - [X] Maryland Occupations
   - [X] Independent Post-Secondary Schools
   - [X] Maryland Independent Post-Secondary Schools
   - [X] Maryland Financial Aid
   - [X] Apprenticeship Programs in Maryland
   - [ ] Apprenticeship Programs
   - [ ] Military Training
   - [X] Military Training in Maryland
   - [ ] High School Equivalency Programs
   - [X] Maryland High School Equivalency Programs
   - [ ] School Subjects
   - [X] Maryland School Subjects
   - [ ] Vocational Education
   - [X] Maryland Vocational Education
   - [X] Job Openings - National
   - [X] Job Openings - Local

8. Total database files contain
   - [ ] Less than 5,000 pages of information
   - [ ] 5,001 to 9,000 pages
   - [ ] 9,001 to 14,999 pages
   - [ ] 15,000+ pages
   - [X] Not condensed to pages but is approximately 5 megabytes

9. Files are based on
   - [X] Dictionary of Occupation Titles (DOT)
   - [ ] National Data from Department of Labor
   - [X] Petersen's Guide
   - [ ] Michigan Occupational System database
   - [ ] Local Data
   - [ ] Other Source Specify:_____

10. Step-by-step instructions are
    _____Embedded on every screen
    _____Embedded at the beginning only
    _____Embedded at the end of file only
    _X___"HELP SCREENS" are always available to User

11. Flexibility of the database allows the user to crosswalk by
    _X___Dictionary of Occupational Titles (DOT) Codes
    _____Classification of Instructional Programs (CIP) Codes
    _____Occupational Employment Statistics (OES) Codes
    _____Military Codes
    _X___Standard Occupational Classification (SOC) Codes

12. Students answer questions and make selections to build personal profiles with
    _X___Seven major categories to build occupational profiles
    _X___Eight major categories to build school profiles
    _X___Six questions to build personal profile
    _____Seven questions to build personal profile

13. Computer program can run on
    _____Hewlett Packard
    _X___Apple
    _X___IBM Mainframe
    _X___IBM Compatible PC
    _X___IBM PC
    _X___IBM Hard Disk PC
    _X___Any Networked Terminal
    _____TRS 80

14. Computer program requires
    _____2 Megabytes or less
    _____2+ to 5 Megabytes
    _X___5+ to 10 Megabytes
    _____10+ to 15 Megabytes
    _____15+ to 20 Megabytes
    _____Over 20 Megabytes

15. In the database are at least
    _X___1,150 Major Occupations
    _X___3,000 Post-Secondary Schools
    _____250 College Majors
    _____250 Vocational Programs
    _____400 Clustered Occupations

16. Information vendor supplied to Technical Steering Group includes
    - _____Current List of Users
    - _X_ Price List
    - _X_ Demonstration Disks
    - _X_ Personal Demonstrations
    - _____Professional Assistance and Consultation
    - _X_ Prompt Services
    - _____User Manuals
    - _____Newsletter
    - _____System on Loan for Hands-On Experience
    - _X_ Sample Printed Occupational Description (obtained from another source
    - _X_ Sample Printed College Description (obtained from another source)
    - _____Other Specify: _____

17. Vendor has a site license
    - _____with Maryland Department of Education
    - _____with State Occupational Information Coordinating Committee
    - _____but does not require a site license for Maryland
    - _X_ Other Specify: Site license with Anne Arundel County

18. System provides information on
    - _X_ New Occupations
    - _X_ Emerging Occupations
    - _X_ New Job Titles
    - _X_ Current DOT Job Descriptions

PART II. RELATIVE PROGRAM DATA

1. System is appropriate for the following users:
   - [X] Dropouts
   - [X] Guidance Counselors
   - [ ] Planners
   - [ ] Teachers
   - [ ] Administrators
   - [ ] Job Seekers
   - [X] College-Bound Students
   - [ ] Displaced Workers
   - [ ] Career Changers
   - [ ] Veterans
   - [ ] Elementary School Students
   - [ ] 7th, 8th, and 9th Graders
   - [ ] 10th, 11th, and 12th Graders
   - [X] Adults
   - [ ] Other Specify: _____

2. Users can access system
   - [X] With counselor assistance
   - [X] Without counselor assistance
   - [ ] With supplemental paper materials
   - [X] Without supplemental paper materials
   - [X] With special training
   - [X] Without special training
   - [X] With prior equipment experience
   - [X] Without prior equipment experience

3. User flexibility is friendly because
   - [X] Students can choose and erase options at any time in the search and retrieval process
   - [X] Students can call up their personal profiles at any time
   - [X] Students can freely move in and out of files
   - [X] All variables to be defined are on one screen at one time
   - [X] Students can directly retrieve specific information on particular schools or jobs at any time
   - [X] Computer matches the student profile with the appropriate jobs and/or schools
   - [X] Personal profiles can be changed at any time
   - [X] Search parameters can be changed at any time

4. System is not flexible or "user friendly" because
   _____An index must be used to access information on a particular school or job
   _____A paper profile assessment must be made
   _____Personal profiles cannot be retrieved at any time
   _____Personal profiles cannot be changed at any time
   _____Search parameters cannot be changed at any time
   _____Students have to return to beginning of program to change profile parameters
   _____Students do not have the option to always view information on screen or to print it
   _____Students must go through the search procedure to access a specific school or occupation
   _____Students can conduct only one search, either occupational or educational
   _____Students cannot match interest with both careers and schools
   _____Data cannot be accessed directly at any point in time
   __X__ Printing is slow and fragmented

5. Reading level of information in system files is:
   _____Below 6th Grade
   __X__6th Grade
   __X__7th Grade
   __X__8th Grade
   __X__9th Grade
   _____10th Grade
   _____11th Grade
   _____12th Grade
   _____College

6. Files are available in the following foreign language (Check all that apply)
   _____French
   _____Spanish
   _____Latin
   _____Other Specify:_____
   __X__None

EVALUATOR COMMENTS: A number of counselors in Frederick, Carroll, Anne Arundel and other counties throughout the State of Maryland have purchased the GIS system on their own initiative. GIS is designed to enhance the counseling process and can be used with the following interest inventories: Harrington O'Shea Career Decision Making System and the Strong-Campbell Interest Inventory.

GIS - GUIDANCE INFORMATION SYSTEM provided by Houghton Mifflin Publishers, is a completely flexible microcomputer system. However, it is available in a variety of formats including mainframe acquisition. It is widely utilized by college-bound students. It does not provide extensive occupational information (it averages two pages or less per occupation). It does not provide local data as a standard file feature. (Local data option files are available at additional cost) Counselors have reported difficulty with printing which is slow and ties up computer time forcing students to "wait in line". GIS does provide outstanding user support.

CAREER INFORMATION DELIVERY SYSTEM
EVALUATION FORM

PART I. SPECIFIC PROGRAM DATA

OBJECTIVE: This form will be utilized by the Technical Steering Committee to objectively evaluate various CIDS systems to identify each system's strengths and weaknesses. The end product is to recommend a Maryland CIDS system which will provide basic information to all Maryland users.

COMPLETED BY
TSG MEMBER JASMIN DUCKETT

DATE DECEMBER 29, 1988

NAME OF SYSTEM SIGI PLUS

SYSTEM OF INTERACTIVE GUIDANCE AND INFO. PLUS

1. This system is completely available in the following formats
   - [x] High Disk/Hard Disk
   - [x] Mainframe
   - [ ] Microfiche
   - [ ] Needlepoint
   - [x] 5 1/4 Floppy Disk
   - [x] 3 1/2 Floppy Disk
   - [ ] 8 inch Floppy

2. User support is
   - [x] User Manual
   - [x] Newsletter
   - [x] Hot Line Telephone Number: 800-542-0491

3. This system is updated
   - [ ] Every month
   - [ ] Every three months
   - [ ] Every six months
   - [x] Once a year
   - [ ] Over a year's time

4. User training is provided
   - [ ] On user site
   - [ ] On vendor site
   - [x] On both vendor and user site

5. Frequency of user training is
   - [ ] upon acquisition only
   - [ ] upon user request only
   - [x] upon both acquisition and subsequent user request
   - [ ] automatically upon updates

(Check All Standard Files that Apply to the Basic Price)

6. Standard database files in this system are:

- [X] Occupations
- [ ] Two-Year Colleges
- [ ] Four-Year Colleges
- [ ] Military Training
- [ ] Independent Post-Secondary Schools
- [X] Financial Aid
- [ ] Apprenticeship
- [ ] High School Equivalency Program
- [ ] School Subjects
- [ ] Vocational Education
- [ ] Job Openings

OTHER: SKILLS, PREPARING: COPING: DECIDING: NEXT STEPS

7.** Option files in this system are: (Check All Options that Apply)

- [X] Maryland Colleges (NAMES AND PHONE NUMBERS ONLY)
- [ ] Maryland College Majors
- [ ] Maryland Occupations
- [ ] Independent Post-Secondary Schools
- [X] Maryland Independent Post-Secondary Schools
- [X] Maryland Financial Aid
- [X] Apprenticeship Programs in Maryland
- [ ] Apprenticeship Programs
- [ ] Military Training
- [X] Military Training in Maryland
- [ ] High School Equivalency Programs
- [X] Maryland High School Equivalency Programs
- [ ] School Subjects
- [X] Maryland School Subjects
- [ ] Vocational Education
- [ ] Maryland Vocational Education
- [ ] Job Openings - National
- [ ] Job Openings - Local

**YOU CAN ADD ONLY ONE SCREEN OF THE ABOVE LOCAL DATA AT THE END OF EA
STANDARD FILE SECTION

8. Total database files contain

- [ ] Less than 5,000 pages of information
- [ ] 5,001 to 9,000 pages
- [ ] 9,001 to 14,999 pages
- [ ] 15,000+ pages
- [X] 3.5 Megabytes of Hard Disk Database Space

9. Files are based on

- [X] Dictionary of Occupation Titles (DOT)
- [ ] National Data from Department of Labor
- [ ] Petersen's Guide
- [ ] Michigan Occupational System database
- [ ] Local Data
- [X] Other Source Specify: EDUCATIONAL TESTING SERVICE GENERATED DATA

10. Step-by-step instructions are
    - [X] Embedded on every screen
    - [ ] Embedded at the beginning only
    - [ ] Embedded at the end of file only
    - [ ] "HELP SCREENS" are always available to User

11. Flexibility of the database allows the user to crosswalk by
    - [X] Dictionary of Occupational Titles (DOT) Codes
    - [ ] Classification of Instructional Programs (CIP) Codes
    - [ ] Occupational Employment Statistics (OES) Codes
    - [ ] Military Codes
    - [X] Standard Occupational Classification (SOC) Codes

12. Students answer questions and make selections to build personal profiles with
    - [ ] Seven major categories to build occupational profiles
    - [X] Eight major categories to build school profiles
    - [ ] Six questions to build personal profile
    - [ ] Seven questions to build personal profile

(EIGHT AREAS ARE: INTEREST SELF-ASSESSMENT; SEARCH; INFORMATION; SKILLS;PREPARING COPING; DECIDING; AND GETTING STARTED)

13. Computer program can run on
    - [X] Hewlett Packard
    - [ ] Apple
    - [X] IBM Mainframe
    - [X] IBM Compatible PC
    - [X] IBM PC
    - [X] IBM Hard Disk PC
    - [ ] Any Networked Terminal
    - [ ] ~~TRS-80~~ TANDY 1000/1200

14. Computer program requires
    - [ ] 2 Megabytes or less
    - [ ] 2+ to 5 Megabytes
    - [ ] 5+ to 10 Megabytes
    - [X] 10+ to 15 Megabytes
    - [ ] 15+ to 20 Megabytes
    - [ ] Over 20 Megabytes

15. In the database are at least
    - [X] 1,150 Major Occupations
    - [ ] 3,000 Post-Secondary Schools
    - [ ] 250 College Majors
    - [ ] 250 Vocational Programs
    - [ ] 400 Clustered Occupations
    - [X] 650 CLUSTERED OCCUPATIONS

16. Information vendor supplied to Technical Steering Group includes
    - [X] Current List of Users
    - [X] Price List
    - [ ] Demonstration Disks
    - [X] Personal Demonstrations
    - [ ] Professional Assistance and Consultation
    - [X] Prompt Services
    - [X] User Manuals
    - [X] Newsletter
    - [ ] System on Loan for Hands-On Experience
    - [X] Sample Printed Occupational Description
    - [ ] Sample Printed College Description
    - [X] Other Specify: LIST OF COMPATIBLE EQUIPMENT AND SUBMITTED THE VENDOR SURVEY FORM

17. Vendor has a site license
    - [ ] with Maryland Department of Education
    - [ ] with State Occupational Information Coordinating Committee
    - [ ] but does not require a site license for Maryland
    - [X] Other Specify: EVERY USER MUST SIGN A LICENSE AGREEMENT WITH THE EDUCATIONAL TESTING SERVICE

18. System provides information on
    - [X] New Occupations
    - [X] Emerging Occupations
    - [X] New Job Titles
    - [X] Current DOT Job Descriptions

PART II. RELATIVE PROGRAM DATA

1. System is appropriate for the following users:
   - [X] Dropouts
   - [X] Guidance Counselors
   - [ ] Planners
   - [X] Teachers
   - [ ] Administrators
   - [X] Job Seekers
   - [ ] College-Bound Students
   - [X] Displaced Workers
   - [X] Career Changers
   - [X] Veterans
   - [X] Elementary School Students
   - [X] 7th, 8th, and 9th Graders
   - [X] 10th, 11th, and 12th Graders
   - [X] Adults
   - [X] Other Specify: HANDICAPPED INDIVIDUALS

2. Users can access system
   - [ ] With counselor assistance
   - [X] Without counselor assistance
   - [ ] With supplemental paper materials
   - [X] Without supplemental paper materials
   - [X] With special training (15-20 MINUTES OF ORIENTATION)
   - [ ] Without special training
   - [ ] With prior equipment experience
   - [X] Without prior equipment experience

3. User flexibility is friendly because
   - [ ] Students can choose and erase options at any time in the search and retrieval process
   - [ ] Students can call up their personal profiles at any time
   - [X] Students can freely move in and out of files
   - [X] All variables to be defined are on one screen at one time
   - [X] Students can directly retrieve specific information on particular schools or jobs at any time
   - [X] Computer matches the student profile with the appropriate jobs and/or schools
   - [ ] Personal profiles can be changed at any time
   - [ ] Search parameters can be changed at any time

4. System is not flexible or "user friendly" because
   _____An index must be used to access information on a particular school or job
   _____A paper profile assessment must be made
   _X_ Personal profiles cannot be retrieved at any time
   _X_ Personal profiles cannot be changed at any time
   _X_ Search parameters cannot be changed at any time
   _____Students have to return to beginning of program to change profile parameters
   _____Students do not have the option to always view information on screen or to print it
   _____Students must go through the search procedure to access a specific school or occupation
   _____Students can conduct only one search, either occupational or educational
   _____Students cannot match interest with both careers and schools
   _____Data cannot be accessed directly at any point in time

5. Reading level of information in system files is:
   _____Below 6th Grade
   _____6th Grade
   _____7th Grade
   _X_ 8th Grade
   _____9th Grade
   _____10th Grade
   _____11th Grade
   _____12th Grade
   _____College

6. Files are available in the following foreign language (Check all that apply)
   _____French
   _____Spanish
   _____Latin
   _____Other Specify:_____

EVALUATOR COMMENTS:

SIGI IS PRIMARILY AN OCCUPATIONAL FILE SYSTEM. OCCUPATIONAL DESCRIPTIONS ARE BRIEF (ONE PAGE IN LENGTH). NO COLLEGE DESCRIPTIONS ARE PROVIDED. HOWEVER, ETS CAN CUSTOMIZE SIGI DATA AT NO ADDITIONAL COST. THE SIGI PLUS SYSTEM IS USER-FRIENDLY AND MENU-DRIVEN ALLOWING SITE USERS TO ADD MARYLAND DATA AS DESIRED. THE SIGI PLUS REPRESENTATIVE CAN TRAIN SITE USERS TO INPUT PERTINENT INFORMATION AT NO ADDITIONAL COST. SIGI IS AN OCCUPATIONAL GUIDANCE SYSTEM THAT PROVIDES COUNSELOR ASSISTANCE IN THE AREAS OF CLIENT SELF-ASSESSMENT, CAREER SEARCHES, PREPARATION FOR EMPLOYMENT, SKILL ASSESSMENT, COPING, OCCUPATIONAL INFORMATION, CAREER DECISION MAKING, AND NEXT STEPS FOR GETTING STARTED IN CAREER OBTAINMENT.

A SYSTEM ENHANCEMENT ALLOWS COUNSELORS TO STORE CLIENT RECORDS. THESE STUDENT RECORDS CAN BE RETRIEVED FOR LATER USE.

CAREER INFORMATION DELIVERY SYSTEM
EVALUATION FORM

PART I. SPECIFIC PROGRAM DATA

OBJECTIVE: This form will be utilized by the Technical Steering Committee to objectively evaluate various CIDS systems to identify each system's strengths and weaknesses. The end product is to recommend a Maryland CIDS system which will provide basic information to all Maryland users.

COMPLETED BY
TSG MEMBER JASMIN DUCKETT

DATE OCTOBER, 1988

NAME OF SYSTEM COORDINATED OCCUPATIONAL INFORMATION NETWORK

COIN

1. This system is completely available in the following formats
   - [X] High Disk/Hard Disk
   - [X] Mainframe
   - [X] Microfiche
   - [ ] Needlepoint
   - [X] 5 1/4 Floppy Disk
   - [X] 3 1/2 Floppy Disk
   - [ ] 8 inch Floppy
   - [X] Floppy Disk System

   - [X] Separate Searches (OCC + College) (To be used with microfiche)
   - [X] Scan Search (For microfiche) (Computerized + Manual OCC Searches)

2. User support is
   - [X] User Manual
   - [ ] Newsletter
   - [X] Hot Line Telephone Number: 1-800-274-8515 8:00 a.m. - 5:00 p.m.

3. This system is updated
   - [ ] Every month
   - [ ] Every three months
   - [ ] Every six months
   - [X] Once a year
   - [ ] Over a year's time

4. User training is provided
   - [X] On user site
   - [ ] On vendor site
   - [ ] On both vendor and user site

5. Frequency of user training is
   - [ ] upon acquisition only
   - [ ] upon user request only
   - [ ] upon both acquisition and subsequent user request
   - [ ] automatically upon updates
   - [X] as needed

6. Standard database files in this system are:
   - [X] Occupations
   - [X] Two-Year Colleges
   - [X] Four-Year Colleges
   - [X] Military Training
   - [ ] Independent Post-Secondary Schools
   - [ ] Financial Aid
   - [X] Apprenticeship
   - [ ] High School Equivalency Program
   - [X] School Subjects
   - [ ] Vocational Education
   - [ ] Job Openings
   - [X] College Letter Writer

7. Option files in this system are:
   - [ ] Maryland Colleges
   - [ ] Maryland College Majors
   - [ ] Maryland Occupations
   - [ ] Independent Post-Secondary Schools
   - [X] Maryland Independent Post-Secondary Schools
   - [ ] Maryland Financial Aid
   - [X] Apprenticeship Programs in Maryland
   - [X] Apprenticeship Programs
   - [ ] Military Training
   - [ ] Military Training in Maryland
   - [ ] High School Equivalency Programs
   - [X] Maryland High School Equivalency Programs
   - [ ] School Subjects
   - [ ] Maryland School Subjects
   - [X] Vocational Education
   - [X] Maryland Vocational Education
   - [ ] Job Openings - National
   - [ ] Job Openings - Local

8. Total database files contain
   - [ ] Less than 5,000 pages of information
   - [ ] 5,001 to 9,000 pages
   - [X] 9,001 to 14,999 pages
   - [ ] 15,000+ pages

9. Files are based on
   - [X] Dictionary of Occupation Titles (DOT)
   - [X] National Data from Department of Labor
   - [ ] Petersen's Guide
   - [ ] Michigan Occupational System database
   - [ ] Local Data
   - [ ] Other Source Specify:_____

_____

_____

_____

10. Step-by-step instructions are
- [X] Embedded on every screen
- [ ] Embedded at the beginning only
- [ ] Embedded at the end of file only
- [X] "HELP SCREENS" are always available to User

11. Flexibility of the database allows the user to crosswalk by
- [X] Dictionary of Occupational Titles (DOT) Codes
- [ ] Classification of Instructional Programs (CIP) Codes
- [ ] Occupational Employment Statistics (OES) Codes
- [X] Military Codes
- [X] Standard Occupational Classification (SOC) Codes

12. Students answer questions and make selections to build personal profiles with
- [X] Seven major categories to build occupational profiles
- [ ] Eight major categories to build school profiles
- [ ] Six questions to build personal profile
- [ ] Seven questions to build personal profile

13. Computer program can run on
- [X] Hewlett Packard (Mainframe)
- [X] Apple
- [ ] IBM Mainframe
- [X] IBM Compatible PC
- [X] IBM PC
- [X] IBM Hard Disk PC
- [X] Any Networked Terminal (Most)
- [X] TRS 80

14. Computer program requires
- [ ] 2 Megabytes or less
- [ ] 2+ to 5 Megabytes
- [X] 5+ to 10 Megabytes
- [ ] 10+ to 15 Megabytes
- [ ] 15+ to 20 Megabytes
- [ ] Over 20 Megabytes

15. In the database are at least
- [X] 1,150 Major Occupations
- [X] 3,000 Post-Secondary Schools
- [X] 250 College Majors
- [ ] 250 Vocational Programs
- [ ] 400 Clustered Occupations

16. Information vendor supplied to Technical Steering Group includes

_____Current List of Users
__X__Price List
__X__Demonstration Disks
__X__Personal Demonstrations
__X__Professional Assistance and Consultation
__X__Prompt Services
__X__User Manuals
__X__Newsletter
__X__System on Loan for Hands-On Experience
__X__Sample Printed Occupational Description
__X__Sample Printed College Description
_____Other Specify:_____

17. Vendor has a site license

_____with Maryland Department of Education
_____with State Occupational Information Coordinating Committee
_____but does not require a site license for Maryland
_____Other Specify:_____
__X__None

18. System provides information on

__X__New Occupations
__X__Emerging Occupations
__X__New Job Titles
__X__Current DOT Job Descriptions

PART II. RELATIVE PROGRAM DATA

1. System is appropriate for the following users:
   - [X] Dropouts
   - [X] Guidance Counselors
   - [ ] Planners
   - [X] Teachers
   - [X] Administrators
   - [X] Job Seekers
   - [X] College-Bound Students
   - [X] Displaced Workers
   - [X] Career Changers
   - [X] Veterans
   - [X] Elementary School Students
   - [X] 7th, 8th, and 9th Graders
   - [X] 10th, 11th, and 12th Graders
   - [X] Adults
   - [X] Other Specify: Disabled

2. Users can access system
   - [ ] With counselor assistance
   - [X] Without counselor assistance
   - [X] With supplemental paper materials (Microfiche or Floppy)
   - [X] Without supplemental paper materials (Hard Disk)
   - [ ] With special training
   - [X] Without special training
   - [ ] With prior equipment experience
   - [X] Without prior equipment experience

3. User flexibility is friendly because
   - [X] Students can choose and erase options at any time in the search and retrieval process
   - [X] Students can call up their personal profiles at any time
   - [X] Students can freely move in and out of files
   - [X] All variables to be defined are on one screen at one time
   - [X] Students can directly retrieve specific information on particular schools or jobs at any time
   - [X] Computer matches the student profile with the appropriate jobs and/or schools
   - [X] Personal profiles can be changed at any time
   - [X] Search parameters can be changed at any time

4. System is not flexible or "user friendly" because
   _____An index must be used to access information on a particular school or job
   _____A paper profile assessment must be made
   _____Personal profiles cannot be retrieved at any time
   _____Personal profiles cannot be changed at any time
   _____Search parameters cannot be changed at any time
   _____Students have to return to beginning of program to change profile parameters
   _____Students do not have the option to always view information on screen or to print it
   _____Students must go through the search procedure to access a specific school or occupation
   _____Students can conduct only one search, either occupational or educational
   _____Students cannot match interest with both careers and schools
   _____Data cannot be accessed directly at any point in time

5. Reading level of information in system files is:
   __X__Below 6th Grade
   __X__6th Grade
   __X__7th Grade
   _____8th Grade
   _____9th Grade
   _____10th Grade
   _____11th Grade
   _____12th Grade
   _____College

6. Files are available in the following foreign language (Check all that apply)
   _____French
   _____Spanish
   _____Latin
   _____Other Specify:_____
   __X__None

EVALUATOR COMMENTS:

The COIN System has been enhanced. The flexibility of moving in and out of files is greater. An economical Turnkey package is available for schools that include both the COIN hardware and software. COIN is available on floppy disks, microfiche and an on-line system.

APPENDIX

SECTION I

SUMMARY REPORT
ANDOVER HIGH SCHOOL

Counselor: Ms. Barbara Uricheck
Visitation by: Dr. Lynne Gilli

Ms. Uricheck is currently using the INFORM system and the GIS. Anne Arundel County pays for the GIS, but Ms. Uricheck would prefer INFORM on floppy disks rather than the GIS. In her opinion, INFORM has better information than GIS because it is localized. Ms. Uricheck is particularly interested in having current job trends and labor market data available to her students, particularly for the State of Maryland.

Her GIS has not been operational this year due to a faulty hard disk drive (Apple computer). Ms. Uricheck sees this as a major drawback of the system. The software for the GIS is supplied by Houghton-Mifflin, but the hardware is maintained by an outfit in California. There is a $250.00 handling charge each time the hard disk drive needs repair - hers has been in the shop twice for very long periods of time. She likes the GIS for two and four year college listings, but prefers INFORM for identifying military and apprenticeship programs.

Ms. Uricheck appreciates the fact that the INFORM system supplies microfiche so that she can make information available to her students. Although she would prefer a computerized version, she does have a microfiche printer that enables her to provide students with "hard copies" of the information that they find most interesting. The drawback is that she can only serve a few students at a time with the present set-up (four microfiche readers, one printer). Ms. Uricheck has several reference books that she also uses (Chronicle Guidance, The Occupational Outlook Handbook - classroom set of 30). She keeps only those publications that include data that is less than five years old.

Ms. Uricheck indicated an interest in "hands-on" training. She said that if workshops are offered in the future, she would like the majority of the time spent using the system that is adopted so that she can become proficient enough to train others. Her annual budget is quite small, thus she appreciates the availability of INFORM. Her funds are spent on software and publications for the most part. She has a difficult time paying for equipment repairs for the GIS and does not have enough money to add equipment to her program.

SUMMARY REPORT

Thomas S. Wootton High School
Montgomery County Public Schools

Counselor: Mrs. Nancy Dumars
Visitation by: Mrs. Nancy Sanchez

Mrs. Dumars currently uses INFORM, Chronicle Guidance, and The Occupational Outlook Handbook as the three major sources of career information for students at Wootton High School.

Mrs. Dumars rates the information available through the INFORM system as excellent. She feels it is the most up-to-date information available. She did state; however, that though her system has been updated regularly, the systems in two other county high schools have not been updated for over a year.

All sophomore students at Wootton are required to do a study of themselves. Most include a career search as part of this paper. These students use the INFORM system for this search and have indicated that the material is quite useful to them.

Mrs. Dumars finds the career and military searches in INFORM to be excellent. However she uses Peterson's Selection Service for college searches because it is more flexible than this section of the INFORM system. The Peterson's Search includes a "Why Not" phase which is not available with INFORM. In addition, Peterson's allows quicker access to revised college lists when criteria are changed. She finds the financial aid section of INFORM limited and prefers to use CASHE.

The INFORM system has the following advantages: (1) a search can be completed within one class period, (2) the system is flexible and easy to use, (3) the material is current, (4) the information is complete, and (5) local data is included.

The availability of INFORM on microfiche is an advantage. One teacher uses this material in her classroom. Mrs. Dumars feels that although most students prefer to use the computer for a search, the microfiche better meets the needs of special students.

The INFORM system has been installed on a hard disk drive in a PC compatible computer. There have been no problems with the hardware. A printer is attached and students may print any information they need. If any change could be made, it would be that only the information found in the search would print rather than the entire screen. This would save time in the printing process but is not a major problem.

The training provided has been adequate and the support from Carol Muscara, Department of Computer-Related Instruction, has been good.

Mrs. Dumars is very pleased with the INFORM system and would not like to see any cutbacks in this service. Mrs. Dumars has a very small budget and would not be able to provide the quality of service she now provides if the INFORM system were not available.

MARYLAND STATE BOARD FOR COMMUNITY COLLEGES
Georgetown Plaza Suite 210
914 Bay Ridge Road
Annapolis, Maryland 21403
301-974-2881

October 13, 1988

MEMO TO: Deans of Students

FROM: Lawrence A. Nespoli

SUBJECT: (1) Revised Regulations on Waiver of Out-of-State Tuition for Nursing Students

(2) Recommendation on Career Information Delivery Systems

This is to follow-up on two items I discussed with the Deans at the October 7, 1988 meeting in Garrett County.

First, as promised I am sending along a copy of the revised SBCC regulations concerning the waiver of out-of-state tuition for nursing students. These have been revised from an earlier draft based on comments received from the colleges. They will be appearing in the Maryland Register in the near future with the usual opportunity for public comment before they are officially approved. If you still have questions or concerns, give me a call.

I also spoke to the Deans about my being asked to serve on a Technical Advisory Group to SOICC (the State Occupational Information Coordinating Committee). Our charge is to make a recommendation to SOICC on which career information system should be supported with federal vocational education funds.

Would you please have the appropriate member of your staff contact me with a recommendation on which system(s) your college thinks should be supported:

INFORM (the current system)
GIS
DISCOVER
COIN
Others?

A brief memo would be the best way to get the information to me.

Thanks for your assistance!

TTY FOR THE DEAF: 974-2609

(S) SC-

PRINCE GEORGE'S COMMUNITY COLLEGE
STUDENT SERVICES

Office of the Dean

November 1, 1988

Dr. Lawrence A. Nespoli
Maryland State Board for Community Colleges
Georgetown Plaza Suite 210
914 Bay Ridge Road
Annapolis, Maryland 21403

RE: Recommendation on Career Information Delivery Systems

Dear Larry:

Per your memorandum of October 13, PGCC recommends the DISCOVER career information system, as our first choice. Its major modules include self assessment, occupation information, occupation search, specific information on colleges, a college search, and is user friendly. It is very good for traditional students and first-time career choices.

Our second choice is SIGI PLUS. It is very good for career changers, but right now does not include a college search.

We find that the other systems are not user friendly. I hope this information is helpful.

Sincerely,

Laurence V. Lauth
Dean, Student Services

ccw

301 Largo Road, Largo, Maryland 20772-2199 (301) 322-0412

(5) 50 ICC

Cecil Community College

1000 NORTH EAST ROAD • NORTH EAST, MARYLAND 21901-1999 • (301) 287-6060 • 398-8818 • 658-4836

NOV 30 1988

State Board for Community Colleges

November 18, 1988

Dr. Lawrence A. Nespoli
Maryland State Board for Community Colleges
Georgetown Plaza, Suite 210
914 Bay Ridge Road
Annapolis, MD 21403

Dear Dr. Nespoli:

Ray Duvall has asked me to respond to your request for information on career information delivery systems.

After a history of using the Guidance Information System, Cecil Community College began using a Canadian based guidance system, "CHOICES" in 1987. "CHOICES" has several advantages:

- It is considerably less expensive than similar systems (GIS, SIGI, Discover).

- It provides a college information component.

- Occupational information is presented in a clear, concise fashion.

- A student workbook is used with the system to enhance the learning.

- It is very user friendly with nice color graphics and information that is presented in a clear fashion.

Although the program was originally developed in Canada, there are several distribution sites in the United States. Our service representative is in North Carolina. Service has always been prompt, helpful and friendly.

If recommending a non-U.S. system is an issue, our preferences is Discover. It is our thinking, however, that "CHOICES" can provide a similar quality of information for less money.

Please feel free to contact me if you would like more information.

Sincerely,

Ann Price

Ann Price
Career Development
Counselor

Anne Arundel Community College
101 College Parkway Arnold Maryland 21012 301 647-7100

(5) SOI cc

RECEIVED
NOV 2 1988
Board for Community Colleges

October 31, 1988

Lawrence A. Nespoli
Maryland State Board for Community Colleges
Georgetown Plaza Suite 210
914 Bay Ridge Road
Annapolis, MD 21403

Memo to: Lawrence A. Nespoli

From: Doris L. Israel
Assistant Director, Career Development
and Academic Advising

Subject: Recommendation on Career Information
Delivery Systems

INFORM is a good choice when an information system is the only requirement.

I prefer SIGI or DISCOVER because they provide good career guidance in addition to information. Students like to use these programs, and we recommend our SIGI program as a supplement to our other career planning resources. SIGI and DISCOVER can be customized to include local information.

Chesapeake College
P.O. Box 8, Wye Mills, Maryland 21679
Tel.: (301) 758-1537, 822-5400

Chesapeake College

A two year regional
community college serving
Maryland's Eastern Shore

MEMORANDUM

TO: Lawrence A. Nespoli

FROM: Becky Rader

SUBJECT: Recommendation on Career Information Delivery System

DATE: October 24, 1988

Ray passed along to me your request for a recommendation on a career information system since I am also a member of the Technical Advisory Group to SOICC.

Although I was out of town for the first meeting, I have received the minutes and materials and am looking forward to the next meeting.

As far as a recommendation, both Ray and I currently like the DISCOVER system. We use INFORM which, in a limited fashion, meets our students' needs. DISCOVER appears to be more comprehensive, but high cost and hardware specifications have eliminated it from serious consideration in the past. If federal funds become available, we would certainly consider DISCOVER, at this point, to be our first choice based on information we currently have.

Ray sends his regards and I look forward to seeing you at the next meeting.

cc: Ray Hoy

OCT 27 1988

(5) SOICC

NOV 1988

Charles County Community College

November 17, 1988

Dr. Lawrence Nespoli
Maryland State Board for Community Colleges
Georgetown Plaza, Suite 210
914 Bay Ridge Rd.
Annapolis, MD 21403

Dear Mr. Nespoli:

Dean Elaine Ryan at Charles County Community College has asked me to respond to your query about which occupational information system the state should support.

I think very highly of the INFORM system. It contains the most complete set of information available on several thousand occupational paths. The information is wide-ranging and covers in detail the explicit nature of each occupation, worker requirements, educational requirements, including specific courses, salary ranges, career ladders, means of entry into the occupation, occupational outlook, and sources for further information .

So impressed am I that I use INFORM daily in counseling my students. The information is easily accessible on microfiche and quick to use. I only wish we could afford the computerized version so that students might have a hard copy of the information they obtain.

We also use the SIGI Computerized Guidance system at the college. I am less impressed with the occupational information provided by SIGI. It conveys no where near the detail of INFORM. Yet SIGI offers values and skills clarification which are important.

Box 910, Mitchell Road, La Plata, Maryland 20646-0910 Phone (301) 934-2251 (D.C.) 870-3008 (St. Mary's) 884-8131

I am unfamiliar with the other systems you mention, although DISCOVER receives high praise from some of my counterparts who work with younger students.

Sincerely,

Deborah Grossman-Garber

Deborah Grossman-Garber
Director, Career Services

aab

cc: Elaine Ryan

APPENDIX

SECTION II

1. Organization

Standard 1.1. An organization should include key institutions representing both producers and users of career information.

A. List the organizations participating in policy-making for your system.

B. How were these organizations selected?

C. Are there current or projected users of your system which are not represented by these organizations? If not, why not?

Standard 1.2. A written charter, constitution, or by-laws should govern the policies of the system.

A. Is a governing document available and up-to-date?

B. What formal and informal agreements are specified with the participating or supporting organizations?

C. What policies and procedures are adopted to carry out the charter, constitution or by-laws?

D. Do the charter, constitution or by-laws set the principal purpose of the organization as the development and computer-based delivery of career information?

Standard 1.3. Management of the system should be within the system's defined service area.

A. What is the system's service area?

B. Is the central office for the system located in the service area?

C. Are other offices organized to bring user services support to significant user populations?

Standard 1.4. The system should have a director or chief executive officer to coordinate and manage operations, to provide leadership to the organization and to serve as liaison to advisory bodies.

A. Who is the director?

B. What requirements were used to select the director? Attach job description.

C. What are the incumbent's qualifications for the job? Attach resume.

D. Is the incumbent knowledgeable about system policies and operations? If not, why not?

Standard 1.5. Professional staff members should be available to develop information, manage the delivery system and assist user agencies in disseminating information to end-user clients.

A. List the staff (by full-time equivalencies). What are their assigned tasks? Attach job descriptions.

B. Are key staff trained in appropriate disciplines and have they had training and experience which qualify them for their positions? Attach resumes.

Standard 1.6. Management should provice in-service training for existing and new staff.

A. What training needs have been identified?

B. What programs have been planned or initiated to satisfy these needs?

C. What qualifies the trainers for the task?

2. Information Development

Career information generally includes both occupational and education information. Whether a system develops occupational or education information, or both, it should operate a thorough information development program. A system delivering occupational information should meet Standards 2.1-2.7. A system delivering education information should meet Standards 2.7-2.13.

Standard 2.1. The number and types of occupations should cover 90% of total employment in the system's service area.

A. What method was used for selecting occupations? Did the method employed use data on total employment, comments from users and counselors, and projected demand occupations based upon national, state and local surveys?

Standard 2.2. In developing topics of occupational information, any topic selected should have an empirical base.

Standard 2.3. A system should develop information which adequately describes the occupation. Occupational topics may include but not be limited to the following:

A. Standard Occupational Classification and/or Dictionary of Occupational Titles

1. Is the SOC and/or DOT Code based on the latest edition of the classification structure used?

2. Does the assigned SOC and/or DOT Code reflect the contents of the occupational description?

B. Duties topic

1. Does the duties topic describe the purpose of the occupation, the responsibilities held by employees, and tasks performed?

2. Are the primary duties of the occupation identified?

C. Abilities topic (These are natural abilities or capacities for learning rather than learned skills.)

1. Are the primary abilities needed to perform the occupation identified?

2. Are the abilities described so that they are easily identified? E.g. working with hands versus manual dexterity.

3. Have feedback reports from user agencies indicated any problems with the user materials? If so, what action was taken?

Standard 4.6. Materials to which users are referred by the system should be available in an easily accessed information center.

1. What method is used by the system staff to determine if this standard is being observed at the user site?

2. If this standard is not being observed, what action is taken by the system? If such action has been taken, what were the results?

Standard 4.7. The statements made in one medium should be consistent and compatible with those made in other files or media; a reference system should exist from one delivery vehicle to another.

1. What is the process and staff responsibility for insuring that consistent information is given in all the files and delivery media?

2. What method is used for referring users from one delivery vehicle to another?

Standard 4.8. Any delivery system hardware components required should be standard equipment that is reliable, widely available, and applicable to a variety of users. Computers in use should be subject to minimum "down-time" and software should be "bug-free" so as not to inconvenience users.

1. What problems have users reported concerning hardware reliability? How have such problems been handled?

2. Describe the process used by the system in choosing or recommending hardware components to user agencies.

3. How often is computer software checked for reliability or updated?

4. Is there a system staff member responsible for delivery system hardware and software supervision?

5. Is there a back-up system available in case the primary computer is not in operation?

Standard 4.9. The delivery system should provide a copy or a summary of its basic information to the user for future reference.

1. Is such a printed copy of information available to users regardless of the type of delivery system or hardware component used? If not, why not?

2. Are users allowed to obtain any amount of material from the system? If not, please explain.

Standard 4.10. The delivery system should be able to house all information related to the topics listed for information development, including localized information.

1. What space problems exist at the present time, if any?

Standard 4.11. The system should have updating capability so that new information can be entered into the system and made available to users within at least six months of the time it becomes available. Some exceptions exist, primarily, data items that are published and are accurate on a yearly basis.

1. Describe the update and distribution process.

2. Which files are updated on an annual cycle?

Standard 4.12. A user should be able to obtain the information desired which is available through that medium of delivery before leaving the system or within a reasonably short period of time after leaving.

1. What help is provided to users who are having difficulty in locating information in the system?

2. Have users reported an excessive time lag in receiving information?

Standard 4.13. The accessing strategies or approaches used to obtain information should be available both in a direct access and a structured search mode depending on the preferences of the user.

1. Are both types of accessing strategies available to system users? If not, why not?

Standard 4.14. If an accessing strategy provides for the use of a client's records (e.g. test scores, class rank, interest inventories, etc.), the client should be aware of any data which are input into the system. Furthermore, the use of client records should not prohibit a client from continuing exploration in any chosen occupational area. Client records, records of individual system use, or any other personal data obtained or used by the system for whatever purpose should be adequately safeguarded so that security and confidentiality will be maintained.

1. Does the delivery system require or allow the use of the client's personal records?

2. Are personal records used to limit system use in any way?

D. Working conditions topic

1. When appropriate, does the topic describe the work setting, hours, physical demands, physical surroundings, hazards, pressures and travel requirements?

E. Equipment topic

1. When appropriate, does the topic describe the tools and equipment used in the occupation?

2. If complex tools are used, is the function of the tools described?

F. Earnings

1. Does the earnings topic reflect the current beginning wage?

2. Are union and non-union wages identified?

3. Does the earnings topic reflect wages for experienced workers?

4. Are salaries reported on an appropriate basis, i.e., hourly, weekly, monthly, or yearly?

5. Are wages reported to take into account regional differences of the state or nation?

G. Employment outlook topic

1. Does the topic outline the projected employment for the occupation?

2. Does the topic identify factors which may influence the projected supply and demand?

H. Training and education topic

1. Are high school courses listed which might be useful and/or required for a person entering this occupation? If relevant, are post-secondary courses identified?

2. Are all applicable on-the-job, apprenticeship and post-secondary programs identified?

3. If relevant, are licensing requirements identified?

4. If appropriate, is previous work experience identified as a method of preparation?

I. Methods of entry topic

1. Does the topic describe all common methods of entrance?

2. If the occupation is not entry level, what qualifies a person to enter the occupation?

Standard 2.4. Format, style and language levels of the occupational description should be presented so that they are easily understood by a diverse population.

1. What is the reading level used? Why?

2. What method is used for determining the reading level of the occupational description?

3. Are the statements impartial? Are evaluative terms avoided? Is orientation or bias toward one kind of work, career preparation, education or user avoided?

4. Does the description avoid racial, sexual and other status references or stereotypes in both titles and contents?

5. Are output descriptions appropriate to the terminal printout capability and the attention span of the user?

Standard 2.5. A system should use data that are current and valid.

1. Is the staff aware of the federal, state and local agencies which produce occupational data? Have they obtained copies of this data?

2. Can the staff identify the strengths and limitations of the resources used?

3. How is the library of printed resources updated? Are adequate monies budgeted for this task?

4. Do staff adequately document the resources used for developing occupational topics?

Standard 2.6. All occupational information should be validated and updated at least yearly.

1. What procedures are outlined for staff to update information? How frequently is the information updated?

2. Does the staff use a validation process for updating the occupational information?

   a. How many validators review each occupation?

   b. Are the validators employed in the occupation which they are reviewing? When appropriate, are the validators representative of education, labor and industry?

   c. How often are the descriptions reviewed?

d. What methods are used for recording validators' comments regarding this information?

e. Are validators' names, addresses and comments easily accessible to the staff?

f. Are adequate guidelines provided to the validators to assist them in reviewing the occupation?

g. How often are validators added or deleted from the validation process?

3. Are means provided for users and interested parties to provide feedback to the staff?

Standard 2.7. If an accessing strategy is used, an empirical relationship should exist between characteristics of the user and those of the occupations or education programs in the system.

1. What accessing strategy does the system use?

2. By what method is the relationship between information and user established?

3. Is this relationship based upon standardized research methods?

4. Does staff fully understand the process of assigning/coding these traits? How were the needed skills developed?

5. Does the text of the occupational information support the coding of these traits? In what ways?

6. Do the questions developed in the access strategy conform to current career development theory and practice? How?

Standard 2.8. The number and types of post-secondary educational programs should cover all significant instructional programs in the state or region served.

1. What method was used for selecting instructional programs?

2. Do the program files cover all significant instructional programs and institutions in the state or region served?

Standard 2.9. A system should develop information that adequately describes the basic characteristics of the program. Education topics may include but not be limited to the following: program objectives, specialties, degrees conferred, sample courses, and a comprehensive list of schools offering the program. Whenever possible, an occupational objective should be given for programs, but explicit occupational objectives should not be listed when there are none.

1. What method was used to collect information about schools offering specific programs?

2. Were the lists of schools offering programs validated? How?

3. Are all schools in the system represented in the program files?

4. Are data on occupational objectives supported in the program files?

Standard 2.10. The number and types of post-secondary educational institutions should include only schools that are accredited or licensed by recognized organizations.

1. What schools are included?

2. What organization accredits or licenses them?

3. Can information about school openings and closings be obtained during the year?

Standard 2.11. School information topics should include, but not be limited to, general information, admission, housing costs, financial aid, and student services. Other detailed information should be provided as available and applicable.

1. What information items are included about schools in the system?

Standard 2.12. School information should be consistent to enhance comparability of information items among schools.

1. Do information items cover similar subjects to enable the user to compare information for several schools?

Standard 2.13. Systems may have additional files appropriate to their needs which enhance system capability.

1. What are these files?

2. What is the purpose of each file?

3. Are these files developed and maintained in accordance with standards previously described (i.e., updated annually, accurate, comprehensive, etc.)?

3. Marketing and User Services

Standard 3.1. A marketing plan should be followed.

1. How is the population to be served identified?
2. How are key people/agencies identified?
3. How are procedures for marketing spelled out?
4. How are rate structures identified?
5. How are computer access capabilities and services identified?

Standard 3.2. Promotion of additional user sites should be an on-going function.

1. Are promotional materials available?
2. Are contacts systematically made?
3. Are referrals followed-up in a reasonable period of time?
4. Are demonstrations conducted as needed?
5. Is special assistance provided with terminal hook up?
6. Are follow-up demonstrations and explanations provided?
7. Is demonstration time provided?
8. Has research been done to identify different types of potential users?
9. Are records kept on referrals and demonstrations?

Standard 3.3. Public information should be available in concise, accurate and effective form.

1. Are materials for general distribution describing the system available? Attach samples.
2. Are public information releases/newsletters, etc. circulated and in evidence?
3. Are public relations activities carried on?

Standard 3.4. User materials should be well designed, easy to use, appealing to users and readily available.

1. Are materials accurate?
2. Are materials easily used and understood by users?
3. Are materials readily available in appropriate quantity?
4. Is the reading level appropriate to the audience?
5. Are materials designed to promote interest and use?

Standard 3.5. Training for use of the system should be provided.

1. Is a training plan in evidence?
2. Are all new users promptly and properly trained?
3. Is in-service held annually for all users?
4. Are user problems promptly handled?
5. Are new items or changes in the system or information appropriately communicated to users?
6. Does evidence exist that system use problems are corrected promptly?

Standard 3.6. A system of communication between marketing staff and users should be in effect.

1. Is a newsletter or other communications device effectively employed?
2. Are provisions made for user feedback over and above annual evaluation?
3. Are records kept of user feedback and problems?

Standard 3.7. The system should be available to all clients/students during their regular day.

1. Do all clients/students have access to the system during their regular attendance hours?

Standard 3.8. The delivery system should be available as part of the counseling and instructional processes and also for independent client use.

1. What evidence is there that the delivery system is integrated with counseling and instructional programs of the user agencies?

2. How is independent client use fostered?

3. Is all information available to all users in a reasonable period of time?

Standard 3.9. Costs for the delivery system should be at a level per user which will make it feasible for user agencies or local or state governments to financially support them.

1. Describe the cost schedule. What is the estimated per user cost?

2. How is the pricing schedule developed?

3. Are user agencies consulted in determining new fee schedules?

Standard 3.10. A coordinator should be identified at each user site.

1. Is there a list of coordinator names and addresses?

2. Are tasks and responsibilities identified for the coordinators?

3. Is there a plan for coordinator training?

4. Delivery Systems

Delivery of career information to users includes two broad functions, accessing and dissemination. Accessing is the strategy or approach used by the individual to search out and explore information. Dissemination is concerned with provision and availability of information to a wide variety of users. The following operating standards for accessing and dissemination apply.

Standard 4.1. The system should employ at least two media of delivery.

1. What are the delivery system media?

Standard 4.2. The delivery system should be demonstrably effective with persons of varying ability and experience.

1. What is the range of ability levels and background of current users?

2. Have there been reports of ineffectiveness with any of the user groups? If so, what action was taken?

Standard 4.3. The delivery system should present information in an attractive and interesting manner so as to motivate users to continue use of the system and to further explore occupational areas.

1. What evidence is there of the presence of this motivational factor in the delivery system?

Standard 4.4. The delivery system components should be user-operable so that independent usage may be fostered.

1. What feedback has been provided by user agencies concerning ease of usage by the individual user?

Standard 4.5. The system should provide user agencies with printed instructions on how to use the various components. These instructions should be distributed to users and should include directions for operating hardware components and descriptions of the information files available. The instructions should be written at a reading level appropriate to a wide variety of intended users.

1. Are booklets or operating instructions readily available to system users?

2. Describe the number and types of booklets or operating instructions distributed by the system.

3. What safeguards exist to protect confidentiality of records, if personal records are used?

4. If personal records are used, how are clients made aware of this fact?

Standard 4.15. The delivery system should be accessible to adequately serve the user.

1. Is the information delivered by the system available at times and places convenient for the user? Is printed material easily accessible to the user?

2. Does the system have standards describing the amount of equipment and materials per site?

3. Have system staff visits to user agencies shown that this standard is being observed?

Standard 4.16. Costs for the delivery system components should be a per user level which makes it feasible for user agencies or local or state governments to financially support use.

1. Describe the system component costs including estimated per user costs.

Standard 4.17. The system should have a staff member responsible for supervising the delivery system. The staff member should be available to user agencies for consultation concerning the delivery system.

1. If there is a staff member assigned to supervision of the delivery system, what is the title and percentage of time allocated to such duties?

5. Evaluation

Standard 5.1. An annual evaluation should be in evidence.

1. Is a plan for evaluation in evidence?
2. Are both users and staff involved?
3. Are third-party persons involved in the evaluation?

Standard 5.2. A plan for utilizing evaluation results should be in evidence.

1. What use is made of evaluation data?
2. What benefits have been derived from evaluation information?

Standard 5.3. A system research and development effort should be in place, with adequate resources allocated, to ensure that the delivery system keeps up with technological improvements in the field.

1. Is such an effort currently being made?
2. How does the system make adequate research and development resources available for design, pilot-testing and evaluation as well as implementation of improvements?

6. System Finance

Standard 6.1. Financial planning should be in evidence.

1. What are the sources of operating funds?
2. Who is the system fiscal agent?
3. What is the process for developing the budget?
4. Is an audit conducted? If completed, what were the results?
5. How is management informed about the financial status of the system?

Standard 6.2. The expense budget should be adequate to provide services expected by the users.

1. What evidence exists that funds available are adequate to operate the system? If funds are not currently adequate, what plans are underway to correct the situation?
2. Who are the largest financial supporters of the system? What percent of the budget does each provide? Which supporter groups are users? How reliable is each of these sources of funding?

APPENDIX

SECTION III

Maryland New Directions, Inc.

January 18, 1989

Mrs. Jasmin Duckett
SOICC Coordinator
Maryland Department of Economic and
Employment Development
1100 North Eutaw Street
Room 600
Baltimore, Maryland 21201

Dear Jasmin:

Enclosed is the INFORM Progress report for the first half of Fiscal Year 1989.

If additional information is required, please feel free to contact me.

Sincerely,

Rose Marie Coughlin

Rose Marie Coughlin
Executive Director

Administrative Offices : 2517 North Charles Street • Baltimore, Maryland 21218 • (301) 235-8800
Career Resource Center: 12 East 25th Street • Baltimore, Maryland 21218 • (301) 235-0350

INFORM PROGRAM REPORT
January 1989

ACCOMPLISHMENTS

UPDATING

1989 Version

All 10 INFORM files were updated for the 1989 version.

- Staff loaded all of the 1988 changes in the National data into the INFORM files.
- Staff researched, compiled and entered the 1989 updates of the Maryland specific occupational outlook and salary data.
- Researched and analyzed the data, and entered the 1989 updates for the School Subject, College Major and Maryland College files, Financial Aid, GED, Vocational Education, Apprenticeship, Military, and Independent Postsecondary School files.
- Researched and loaded the 1989 Occupational Search on the Apple IIE.
- Created fillers for occupational file (pages inserted in the system where there is a space that provide additional information on job search strategies and general world of work data).

1990 Version

- Staff presently is researching and documenting sources of data for the 1990 national occupational information update.
- Staff has completed research and prepared an expanded list of "Sources of Additional Information" for page 14 of the occupational files.
- Contacts with agencies and organizations to obtain current Maryland wage and salary data and licensing regulations has begun.

PRODUCTION

- Prepared, edited and proofed camera-ready copy of the entire INFORM system for microfiche filming.
- Updated, proofed and prepared camera-ready copy for printing all of the support documents.
- Produced 325 sets of microfiche and support documents.
- Reviewed, researched and edited INFORM user distribution list to assure addition of new and removal of closed sites and the accuracy of addresses and contact persons.

- Distributed 275 INFORM microfiche sets to Maryland High Schools, Middle Schools, Community Colleges, Corrections and Juvenile Services Agencies.

- Arranged for the 1989 data to be loaded into the IBM hard disk version.

USER SERVICES

- Regional training sessions have been held in Harford County (10/18-88) and at Chesapeake College (11/30/88) providing training for about 15 counselors at each site.

- Planned and announced four training sessions to be held at MND's Career Resource Center between January and May.

- Participated in a three-day Career Awareness Conference for Baltimore City School students.

- Produced and distributed a quarterly newsletter for INFORM Users. The spotlight occupation in the fall issue on "Nannies" produced a large response from readers asking for more information. The Winter issue is presently in production.

- Staff responds to 8 to 10 requests weekly on the hotline for information about the system, the content, applications, etc.

OTHER ACTIVITIES

- Met with staff of other state agencies and community organizations interested in the possibility of including INFORM in their programs. (MEOC, OWEP, Maryland Mental Health Libraries, and Maryland Department of Personnel.)

- Staff responds to an average of 10 requests for information about occupations and career opportunities in Maryland each week.

- We have requested interns from the Maryland Institute of Art and Towson State University to work with us to enhance the INFORM files with graphics depicting the various occupations and to reseach and update files.

- Staff has provided information on occupations and other career materials to inmates of the Maryland House of Corrections for their Career Center.

- Staff will attend and demonstrate INFORM at the Regional Conference of Career Development Associations on January 26-28, 1989.